Vol. LII., No. 2291.—Saturday, January 1, 1887.

The Builder

ILLUSTRATIONS.

Hôtel de Ville, Pantin, Paris.—M. Léon Guélorget, Architect 12-13
The Cathedral, Siena 16-17
"Measure and Value."—By Mr. H. W. Brewer 20-21
"The Enchanted Chair."—Mr. Alfred Gilbert, Sculptor 24-25
The "Appartamenti Borgia," Vatican, Rome: Details of the Decoration by Bernardino di Betto-Pinturicchio.—Drawn by Mr. F. W. Woodhouse ... 28-33
Church of the Holy Innocents, Hammersmith.—Mr. James Brooks, Architect 36-37
American Church, Paris: Sections and Details.—The late Mr. G. E. Street and Mr. Arthur E. Street, Architects 40-49
Westminster Abbey, Chantry of Henry V.: Sections and Details.—Drawn by Mr. G. J. M'Combie 52, 53
Map of London and Suburbs, showing the Boundaries of the Surveyors' Districts: First Portion 56-57

CONTENTS.

Historic Towns: London 1
A Note on Siena Cathedral 3
Notes 3
Letter from Paris 5
Two Old Parisian Jewellers: Bourgnet and Bourdon 6
London and the Session of 1887 8
The Rateability of Machinery 9
Map of London, showing the Boundaries of Surveyors' Districts 9
The Hôtel de Ville, Pantin 9
"The Enchanted Chair": Sculpture 9
The Chantry of Henry V., Westminster Abbey 9
Church of the Holy Innocents, Hammersmith 9
The American Church, Paris 10
Japanese Carvings 59
The "Appartamento Borgia," Vatican, Rome 59
"Measure and Value" 62
Building in Aberdeen 63
Competitions 63
The Right of District Surveyors to Enter Dwellings 63
Provincial News 63
Church-Building News 64
The Student's Column: Field Work and Instruments.—I. 64
Books: Smith's Ornamental Interiors (Crosby Lockwood); Beken's Freehold Disfranchisement (Liberty and Property Defence League) 65
Recent Patents 66
Recent Sales of Property 66
Meetings 66
Miscellanea 66
Prices Current of Building Materials 67

*Historic Towns: London.**

MESSRS. LONGMAN & CO. are to be congratulated upon their present undertaking, which is to issue a series of volumes upon the widely-extended subject of the historic towns of our kingdom. They are to be of readable size, and of such moderate cost as to place them within the means easily of every reader. Dr. Freeman and the Rev. Wm. Hunt are the editors, and the intention is to treat of such towns of our country as have played a conspicuous part in the general history of the kingdom. There are, to quote from the preface, "the old Roman cities, restored in some cases after a period of ruin, and the old head-towns of shires, some the same as the Roman cities, others different. There are towns, like Bristol in one age and Hull in another, which, without being heads of shires, rose to importance through commerce." There are towns which have gathered around a castle or church; there are others which have risen to great wealth within the last two centuries. "York, once imperial, then royal, has kept more than any other city the character of a local capital on to our own day. Exeter is the city which, as not becoming English till Christian times, has lived the most uninterrupted life."

Winchester is pre-eminently the city of both English and Norman royalty. Carlisle, the bulwark against the Scot, Shrewsbury against the Briton. Twelve of these volumes are either nearly ready or in preparation, one of them being devoted to St. Andrews, showing that the intention is, we are glad to see, not to confine the volumes only and exclusively to English towns. In addition, another volume is actually ready. This is rightly devoted to London, and it is from the pen of Mr. W. J. Loftie.

It is but right that the beginning should thus be made with the Capital city, not only on account of its long existence, from Roman, or earlier than Roman, times, and of the important part it has played in the annals of our country; but from the fact that its charters and its privileges have stood as models for the framing of similar ones by the Norman and later kings to other municipalities. Its history will therefore serve a good purpose for comparison with the others to follow, and its beginning this series of volumes will afford benefit in consequence, while this volume renders the post of honour, as by right, to the metropolitan city.

The tale of the growth of London from its beginnings in such early times of the dim past that we can only dubiously trace them in still more dubious tradition, and by discoveries few and far between, is of so much interest that a new book on the subject is always welcome, even although the number of existing books is already legion. The author's intention and object are best stated by a rapid extract or two from the summary with which he closes it. "I have endeavoured," he says, "without writing a continuous narrative, to show, first, by the investigation of recently-discovered evidences, how London attained its paramount position in the kingdom; secondly, how its municipal institutions, the models on which those of almost every other English city and town have been moulded, grew up from the combination of the English shire system with the foreign commune, and partakes of the characteristics derived from both; thirdly, how in spite of the legal subjection of Middlesex and part of Surrey to the city, the suburbs grew and extended under the control, not of the citizens, but of the ecclesiastical landowners and their successors." The work consists of 213 readable pages, each of which will at least set the reader thinking, even when he may fail to agree with several of the author's conclusions. There is undoubtedly a difficulty which must always be felt by a writer who would take London for his theme, and that is the impossibility for him to deal with it adequately in a book of moderate size. The subject is so vast and the issues so important that hardly any single volume is sufficient to afford us all the information we may desire. In the moderate-sized work before us it is, therefore, impossible to expect very deep or full information, and we may be prepared for only reference to a general narrative such as an ordinary reader may be satisfied with. We consider that the series of volumes in contemplation may fairly be expected to address themselves mainly to ordinary readers, or not much more. On this account we must confess to a certain feeling of regret, not that the pages do not tell us all that we may wish to know, but that they are written as they are. The narrative form, which we consider has many advantages for the production of such histories as are proposed, is almost entirely laid aside, and the writer assumes that the reader already knows the subject that may be descanted upon. When the narrative form is adopted, as it is in parts of the two last chapters, the pages may

* Historic Towns. Edited by Edward A. Freeman, D.C.L., Regius Professor of Modern History at Oxford; and the Rev. William Hunt, M.A., of Trinity College, Oxford.—London. By W. J. Loftie, B.A., F.S.A. Longmans, Green, & Co. 1887.

be followed with much more interest and satisfaction.

In the case even of some of the recent discoveries, too, the reader is supposed to know of them, and we obtain insight into their nature only by some stray allusions. Thus, for instance, we hear of the discovery of a part of the northern gate of the City, but we are not told of the whereabouts in Camomile-street, under what circumstances, or when. Similarly, it is only by some stray references, one on one page, another elsewhere, that we are made aware of the nature of Mr. Lyte's researches among the St. Paul's muniments. We are already supposed to know all about them.

The book consists of nine chapters, arranged as follows :—London before Alfred, the Portreeves, the Mayors and the Wardens, the Municipality, London and Middlesex, and the Church in London, come in for a chapter apiece, while London Trade and the Relation of the City to the Kingdom are treated of in the two last chapters. These subjects will be of interest to many others besides Londoners, but it is, perhaps, in the growth of the City and its buildings that our readers will be most interested. The author unfortunately has not gone at all deeply into architectural matters, and says so. Still, there are a great many references which fairly well come within the scope of architectural studies, and particularly the chapters upon the early settlement of the City and the church in London. The derivation of the name of London is traced to two British words, Llyn-Din, the lake fort, with which the author appears to be satisfied, and upon which he bases a description which might as well have been reserved or modified, as to what the locality was in the British period. The Roman settlement is illustrated by a map, which is, of course, as may be said of all the other and numerous maps which have appeared in other works, different from any of them. It might as well have been omitted. According to Mr. Loftie, the original Roman fort was in form a long parallelogram, extending from the east a little beyond London Bridge, westward to Walbrook, where it terminated in three impossible bastions, which, when laid down to scale on a map of London, measure more than 300 ft. in diameter each.

After this plan and the description we are not a little startled to find that this was not altogether London. But, on this novel subject the author had better speak in his own words, which we briefly summarise. "It will be desirable to examine a statement made by Ptolemy, the geographer, whose extraordinary accuracy is not to be lightly doubted. He sets London in Cantium, that is, on the south side of the Thames where Southwark is now." "We may account for this assertion by remembering that, until much later than his time, the Roman settlement on the northern bank consisted of very little more than the small fort." "Moreover, there have always been very extensive Roman remains found in Southwark."

"It is very possible that at the time Ptolemy wrote the foundations of Southwark were considerably larger than those of London, which, as we shall presently see, owed a short-lived importance to one of the very last of the great works carried out in Britain by the Romans." We need not follow the suggestion that if "Wall-Worth" means the farm by the wall, and if a wall went there, the wall around Southwark would be larger than that around London, but we may glance at the statement. "Ptolemy is, therefore, right, and London, until the end of the third century, was a city in Cantium, with an outlying fort and bridge-head on the opposite side of the Thames." Elsewhere he says,—"I have already shown that London was not a walled city in 314, when Restitutus attended the Council of Arles." "Restitutus is, in fact, more real than London." We may well close this series of extracts with this statement. We really wish that writers on London topography would be a little more content to study the discoveries of their predecessors, as well as those of our own day. It would prevent much random writing. The discoveries made along the line of Sherbourne-lane and Lombard-street more than 100 years ago, well outside the area of Mr. Loftie's small fort, indicated beyond a doubt that a large number of timber buildings had suffered from a conflagration, and that this was of early date was indicated by the presence of a gold coin of Galba's, with earlier ones, found in the midst of the burned ashes. Similar evidences of conflagration have been found over a great part of the City, and indicate that it was a universal calamity, and that London was then of fairly large size. The older writers are, doubtless, correct in assigning this fire to the time of the revolt of Boadacea. If we go to the Guildhall Museum we shall see a number of bricks inscribed "PRB . LON., P.PR . LON.," and others,* indicating beyond doubt that they refer to London, whatever may be the exact meaning of the inscription. They were found in London. Not a single one of the series has been found in Southwark, and, to the best of our knowledge, not a single brick so inscribed has been found on the south side of the Thames; although, had it been so found, it would not have been an extraordinary matter. Roman remains in Southwark are numerous enough, but only a moderate distance down High-street, and nothing has yet been found of special interest, or different from what might be expected to be found on the sites of what were doubtless those of suburban villas. We are glad that a Roman origin is granted to the City wall of London, which, notwithstanding the evidence of its construction, has been denied by a recent writer.

We pass on to another subject, of no little interest to all students of English history,—the descent of Roman institutions to our own time. To state the case briefly, with fitting regard for the space at our disposal,—it has been observed by several historians that the municipal system of government by a mayor and aldermen, common throughout the Middle Ages to our own time, is very similar to the old Roman administration, and the inquiry naturally suggested itself, Did the system survive the advent of the Saxons and the intervening time until recorded history shows it to us as being in existence? Or, did it come into being in Norman times without regard to the antecedent state of things?

Believers in the continuous existence naturally lay stress upon the widely-extended use of the system, let the officers be called by what names they may be, and upon its rapid development as soon as charters began to be granted by the Norman kings to the various cities and towns, and it does not appear to be an unreasonable belief. It derives some additional strength from the fact that the earliest Saxon settlers in England appear to have avoided the towns for the open country. That the towns did actually continue, with what security their Roman walls could give them, is sufficiently apparent by the existence of many of them to our own times. Side by side with the town's government is that of the trading guilds. Recent researches have helped to confirm the belief that the various craftsmen of Roman times were united together in companies so analogous to the guilds of Mediæval times as to render it equally reasonable to believe that the guilds whose existence is apparent at an early date in Norman times, are more likely to have been a survival than a new creation. Our author is, however, decisive in his opinion upon both these subjects. Of the first he says that "not a single fact of any kind has yet been adduced that will go even a little way towards proving this romantic theory"; "we have the king's officer, the wick-reeve, or portreeve,"—"the two words mean exactly the same,"—"mentioned as existing at the latter part of the seventh century; and he was still the chief civil authority in the latter part of the eleventh." "There is not," as the late Mr. Toulmin Smith well remarked, "the shadow of an analogy between Saxon and Roman institutions of this kind." The belief is expressed elsewhere that London was so completely burned by the Danes that King Alfred's reparation amounted, in fact, to a new foundation.

If we turn to other portions of the book, we shall find, however, that there must have been other authorities in the City than that of the portreeve. On page 191 we read with satisfaction,—"In the election of a king, London had long taken a great constitutional part. The voice of her citizens had long been accepted as representative of the popular assent in the election of a king. When Æthelred died, all the witan that were in London, and the burgesses, chose Eadmund to be their king, says the chronicle." "On the death of Cnut, the citizens joined with the Danes in raising Harold Harefoot to the throne." In these narrations of facts, and others could be referred to, there is, singularly enough for our author's decisive assertion, no reference whatever to the portreeve, but only to the burgesses and citizens. It must be evident that a single governor could not get on for very long in the government of a large trading city without some sort of a Council. But then, this brings us closely to the model of an old Roman municipality. It may be remembered, too, that William the Conqueror's Charter is addressed not only to William the bishop and Gosfrith the portreeve, but also to the burghers. An interesting article not long since appeared in Walford's *Antiquarian*,* from the pen of Dr. Pring, in which a clever line of argument is elaborated, suggesting that the office of portreeve itself descended from Roman times, and that the actual name, "porta," a city gate, itself shows the survival of a Roman official, having charge of the space at the city gates where the markets were held.

This subject is likely to receive much illustration from the series of volumes to be issued. Perhaps their appearance will be decisive upon it, for their production will require the searching through of many of the provincial municipal archives, and much important information may be the expected result.

The chapter devoted to a record of the portreeves is an interesting one, as is also that of the creation of the office of mayor. We hear of the mayors giving charters to the craft guilds; of many of the shopkeepers at an early period living at Stepney, Stratford, or Hackney; of many curious changes of name, showing that what is so familiar to us in the varying orthography of names in the seventeenth century had much earlier beginnings. The record of the appointment of the wardens is ably written, and is full of information, although assertion is now and then adopted when a little implied doubt would have been more suitable. We have reference to the guarding of some of the City gates by certain of the wards, in which we can readily recognise a resemblance to the defence of various parts of a castle by the feudal system of castle guard. There is hardly space in these crowded pages for reference to the old London legends, and none is made either to Gog or Magog, or to King Brutus. This is an advantage. Still, we were not prepared to hear that Ludgate meant only a "postern." The presence of the Jews in London is briefly referred to, and we learn that "the Jews were already remarkable for their skill in building, and theirs are among the oldest stone houses we hear of." The large amount of property held by the various monastic churches around the City is mentioned, and the causes why the suburbs of London were not included in the scheme of government of the City, are alluded to, as also the curious essays at the government of Bridge Without Ward. Of Westminster Abbey doubt is expressed with respect to genuine evidence of its being a very ancient foundation. "So far, I have not found any unquestionable evidence that Westminster Abbey was in existence before the Danish Conquest." The references to the earliest mention of the City wards are briefly but well rendered, having regard to the importance and extent of the subject.

The chapter devoted to the Church in London is all too short for fair justice to be done to the extended subject, and due allowance has therefore fairly to be made. There is a great deal contained in it which will

* See the *Builder*, vol. li., p. 795.

* The Ancient Name and Office of Portreeve. By J. H. Pring, M.D. The *Antiquarian*, magazine, iv., p. 264.

amply repay for the perusal; as, for instance, when the work of the Canons of St. Paul's is discussed, their non-residence, their finding a parochial congregation irksome, and the growth of a number of parish churches around the Cathedral and the Minster of St. Martin-le-Grand. "The Bishop and his Canons could assign a parish to a church as a modern rector assigns a district to a chapel-of-ease." Reference is made to the dedications of many of the churches, and it is ingeniously suggested that since several of the churches dedicated to All Hallows, St. Mary, and the like, stand close to one another, they, in fact, show the subdivision of some primitive parish having such a dedication, the later churches having the same dedication as the parent one, with a suffix for distinction. There is, perhaps, too much said to suggest that many of these parishes are of late rather than of early formation,—say, as we understand it, of post-Norman rather than of ante-Norman date. We think the balance of evidence is the other way, and that this chapter would have been the better had some of the statements been a little less positive. Thus, we are told that "St. Magnus only died in 1110, and his church, therefore, must belong to the great church-building epoch of the twelfth century, at the earliest." Other writers have, however, shown that there was more than one saint of this name, and that more probably the church is named after an earlier one. Then, too, there is no documentary evidence of the separation of this or of several others of the parishes, which might reasonably be expected to exist were their formation of the later Norman times. St. Bridget is hardly likely to have been the Swedish saint, as is suggested; and surely the existence of the steeple of All Hallows-the-Less, over the gateway of Cold Harbour, can hardly be accepted as evidence that the church was built by the owner of the mansion. Does it not rather point to an extension of the building, when, the gate being in the way, the steeple was placed over it,—such as, in fact, we see in several existing buildings? We cannot support the statement, p. 167, that, with some exceptions, "no City church was conspicuous for any fine feature." While there were doubtless a good many small churches, Hollar's views are alone sufficient to show that they must have possessed many very interesting characteristics. A tribute is rendered to the genius of the "greatest English architect, called in to give the world a series of models of unapproachable beauty and convenience, designed, not like the old churches for the celebration of mass at many altars, but with the object of accommodating the largest number of hearers within sight of the pulpit." We concur in every feeling of admiration for Wren as a true man and a born architect; but to speak of his churches as of "*unapproachable* beauty" is merely a piece of the exaggerated cant fashionable at present among a certain clique of æsthetes.

The two concluding chapters, on London Trade and London and the Kingdom, are the best in the book. The former refers to the growth and extension of the mercantile influences of the City, not only in England but abroad, reference being made to the extended privileges of the citizens and of their dealings with foreign nations on reciprocity principles. "The men of other nations coming to London were to be treated as their countrymen treated the London traveller abroad." The closing chapter refers to many an event of which the Imperial city may be proud, for it speaks of her prowess and her influence for good in many a momentous event of English history. A parallel is drawn between Paris and London, and it is stated that while the influence of Paris on France has usually been bad, that of London on England has been good. Its voice has been potent in the setting-up of kings, in sustaining the liberties of our country, in many a noble and good act. Its influence has been the turning-point of many an event, and in the long run its support has caused success, the want of it failure.

While it is no ordinary task to write a book on London that is capable of satisfying the many and varying demands upon it, it is, in like manner, no easy task to review any such book. When a volume is not sufficient to render justice to the theme, the ordinary compass of a review is hardly capable of reference to all the subject-matter of the book. We have only touched upon many points which deserve reference; we have passed over many more altogether. Still, while several things have been pointed out which we consider to be defects, we have, we hope, said sufficient to show that this moderate-priced volume is deserving of a place in the library of every man who desires to know more than he does at present of the rise and progress of the City of London.

A NOTE ON SIENA CATHEDRAL.*

BY T. MANLY DEANE.

TO give a description of Siena Cathedral in a short space and short time is no easy matter, considering the number of works of art it contains, both in sculpture and painting, quite apart from the architecture of the whole, which, as a piece of Italian Gothic, may be considered the best that nation ever produced, being only rivalled by Orvieto and Milan; but, as most people know, the Italians never cared for Gothic work, and all their attempts at it are tinged with Classic, both in composition and detail. Siena is an instance, and no student of Gothic would ever come here to learn his art, beautiful as this building is. In composition, the façade certainly surpasses Orvieto; it is plainer and broader, and more logical; it is crowded with ornament; but this, in a climate like Italy, does not seem out of place, and certainly does not interfere with the whole effect, but rather gives scale and dignity. The west front, being so striking and more elaborate than any other part, naturally attracts all one's attention, and when one has described it he may be said to have described the exterior of Siena Cathedral; though the lofty campanile,—a work of much earlier date than the west front,—is a beautiful feature, and resembling in detail most of the campanili in Tuscany, beginning low down with one window on each face, in each story the number increasing towards the top. The church is built of black and white with some red and other coloured marbles in stripes. The campanile is all black and white.

Like the country itself, its people and their habits, one needs to be accustomed to this sort of thing before it becomes pleasing; but so it is this tower is beautiful when you know it. The dome is very little visible from outside, and is not a pleasing feature, with the exception of the lantern on the top, which is pretty. It will be well just to explain that the church, as it now stands, is an enlargement of an older church (of which, however, it would be difficult to find any traces), which was built in the twelfth century, and this enlargement is in its turn only part of a great scheme to build a huge cathedral, which would have been the largest in Italy, the present church being only the transept to this; but after working for years they were stopped by the plague and by the foundations giving way. This work was going on from about 1225 to 1259, and again till 1321; the nave of the present cathedral was lengthened in 1339. The principal dimensions are now,—300 ft. long; width of nave, 80 ft.; length end to end of transepts, 170 ft. John of Siena was the architect to the alterations of the west end; Maestro Lando also is mentioned as an architect, whose work also appears.

The inside of the cathedral is a picture. It would be impossible to say anything was good from an architectural point of view, but it has a lovely tone of colour, and from every point of view it groups well. There is no triforium, but simply very high side arches resting on clustered columns of black and white marble in stripes, and over these the vaulting arches spring close down to the string, with three-light tracery windows between. The aisles have large single-light pointed windows. There are five bays to the nave. The transepts have aisles, with a chapel in each towards the east. The choir also has aisles. The dome and lantern is not over the centre of transept and nave, but towards the west end of the crossing; it is hexagonal on plan. There is a small apse to the choir. Over the side arches, as a sort of cornice between consoles, is a row of hideous heads, all done at one period, but supposed to represent the popes, among whom originally were some which had to be removed.

The pavement is a most remarkable work, and illustrates in stone Bible history, old and new, together with some classical mythological characters. This work is done by different hands, and is principally fifteenth-century. Beccafumi and others worked at it. The drawing is very good. It is now always covered up with wood so as to protect it, but it can always be seen without difficulty.

The pulpit is by Nicolo Pisano, thirteenth century. Either a copy of this or one very like it is in South Kensington Museum. The carving is too crowded, and though well executed, not satisfactory, nor to be compared with thirteenth-century work at Amiens or other Northern work. The steps up to the pulpit have a beautiful balustrade and other work in the best Italian Renaissance style. There are tombs, and fonts, and holy-water stoups also in this latter beautiful style, throughout the church. The west window, which is circular, is filled with good stained glass, representing the Last Supper, date about 1549. The choir-stalls are beautifully carved by one Bartolo. Negroni, 1567; they are very elaborate, but a little past the best period of wood-carving, and want the crispness of treatment so essential to good wood-carving. There is a room off the north aisle of the nave, entered through a doorway round which is some fine Renaissance work, called the Library. This room is enriched with beautiful frescoes by Pinturicchio and by Raffaelle while a student; these were finished 1503, and are perfectly preserved; they represent scenes in the life of Pius II., Æneas Silvius Piccolomini. The room was erected and this work procured for it by Pius III., his nephew. The choir-books, which are splendidly illuminated, are kept in this room; these illuminations are late in style, and, though wonderful, are not, in the writer's opinion, very beautiful or worthy of study; but the frescoes certainly are, and, to those interested in the costume of the Middle Ages, this is a rich find. The pavement also of the library is an interesting piece of majolica tiling, and the ceiling is beautifully painted in the best manner of the Renaissance, and is quite fresh and brilliant. It is a scheme of colouring which is suitable to good Gothic work and Classic alike, and from it one may judge of the effect of clear pure colouring harmoniously blended, showing that there is no difficulty in using red and blue and gold,—pleasant brilliant colours,—instead of melancholy greens and greys. It is said this room was built specially for the reception of these choir books.

Below the choir is the baptistery, but to reach it one must leave the church. It has a painted vault and walls, fifteenth-century work, but it is very dark; the font, date 1428, in the centre, is a beautiful bit of work, and exhibits sculpture by Gio della Quercia, Ghiberti, Donatello, and Michelozzo.

* See Illustration in this number.

NOTES.

IT appears that any project for founding the proposed Imperial Institute in a central position will probably have to be abandoned for want of funds to purchase a site anywhere in the Westminster district, and it is proposed that the promoters of the Institute should appeal for a portion of the site in the hands of the Commissioners of the Exhibition of 1851. No doubt the cost of such a site as is required would be enormous in the neighbourhood of the Houses of Parliament, and no doubt the Imperial Institute would have a very good claim on such property as that held in trust by the Commissioners of the 1851 Exhibition; but for all that, the neigh-

bourhood of our Government buildings is where the Imperial Institute ought to be, and we greatly doubt if it would be worth while to erect it out at Kensington.

AS usual after a heavy fall of snow, the daily papers resound with paragraphs, easily written and neatly turned, making great show of indignation against "vestries" and all other bodies who might be supposed to be responsible for clearing away the snow, for not doing it quickly enough. We say advisedly "a show of indignation," for we suspect that this kind of indignation paragraph is simply thrown out as seasonable and popular, and likely to hit the public feeling at the moment when snow is making every one uncomfortable. As we have pointed out on a former occasion, this indignation is to a great extent senseless and misplaced. If heavy falls of snow occurred over London a dozen or a score times in the year even, there would be something to be said for keeping an army of men in readiness to clear it all away each morning it occurred. But the expense of doing this would be enormous, and as it is, a heavy fall occurs, perhaps twice, often only once, in a winter, and to keep a sufficient number of men and carts at call to clear it all away at once would mean an expense completely out of keeping with any ratepayer's notion of economy. The makers of paragraphs probably never stop to calculate what is the area and what the cubical mass of a fall of snow of a few inches thick over London; if they did, they would perhaps see the absurdity of their expectations from the authorities. There are certain discomforts which, though considerable at the time, are too exceptional to be worth providing against as if they were regularly recurring evils. Thus, in regard to drainage, it has been long recognised by the best authorities that it is more reasonable to risk an occasional overflooding of sewers by storm water than to go to immense extra expense to construct sewers of capacity for the heaviest possible storm. So in the matter of snow; it would be mere waste of money to keep in readiness for a whole winter the men and *matériel* necessary to make a rapid clearance of such an immense mass of matter, which will clear itself in two or three days. If people would make a few simple calculations, they would find that out; but then the objurgatory paragraphs would be all spoiled!

IT would seem that the Government have at last awoke to the necessity of preventing open spaces in the neighbourhood of London from being absorbed by railway companies, although it must be confessed that they have taken rather a singular method of showing their interest in the subject. The Home Secretary has forwarded to the Metropolitan Board of Works the plans, book of reference, and *Gazette* notice deposited in connexion with the proposed introduction into Parliament of the Latimer-road and Acton Railway Bill, and has requested the Board to favour him with their remarks with regard to an anticipated interference with commonable lands. The action of the Home Secretary is satisfactory so far as it goes, but why should he select the Metropolitan Board of Works to do the work? The Board is, in all probability, as ignorant on the subject as he appears to be himself. It has charge of some few open spaces which have been handed over to it by Act of Parliament, but it is not likely to be acquainted with the local circumstances of open spaces which are not under its control.

A REPORT has been addressed by Mr. James Lemon, M. Inst. C.E., to the Local Board of Cowes, on the main sewerage of that district, which comprises about 570 acres. The population of the district in 1881 was 7,072, the rate of increase being 18·7 per cent. in ten years. The present sewers drain upon the foreshore by fourteen outfalls at all states of the tide, the result being the deposit of sewage mud on the shore, and the issue of sewer gas from the tide-locked sewers into the town, at certain states of the tide. Mr. Lemon proposes to divide the town into two districts. The high-level portion is to be drained by an 18-in. iron drain pipe, with a gradient of 6 ft. per mile, and there is to be a reservoir sewer, to act as a flushing tank, to hold 5,000 gallons, into which the low level sewage will be pumped. The discharge is to take place at half ebb, at a distance of 630 ft. from high-water mark. No means are proposed for defecating the sewage; and Mr. Lemon speaks with hesitation as to how far it can be got rid of in its crude state without nuisance. That is a point as to which attention should be given to the facts collected by Messrs. Robinson and Melliss, in their work entitled the "Purification of Water-carried Sewage." In the present case, as may be expected from the levels, the sewers of the upper district, Mr. Lemon remarks, become ventilators to the sewers of the lower. It is proposed to provide manholes or lampholes at every hundred yards, which will act as ventilators; that is to say, will diffuse the sewer gas formed through the town, instead of allowing its escape at the outfall or through the higher portion of the sewers. How far sanitation is promoted by such a diffusion of sewer gas is a moot point; and we are thus brought face to face with the two main evils that attend on the treatment of water-borne sewage, when no steps are taken for its disinfection. The estimate of the cost is 5,600*l.* for intercepting sewers; 4,538*l.* for reservoir and outfall; and 5,620*l.* for new sewers, manholes, flushing chambers, gas engines, ejectors, and ventilators. Adding 15 per cent. for contingencies and engineering, the sum arrived at is 18,121*l.*, or 2·56*l.* per head on the population of 1881. The cost of a very similar arrangement at Brightou was 100,000*l.* for a population of about 109,000 persons, as stated by Messrs. Robinson and Melliss.

AN instructive measure of the activity of the builder in London is furnished by the annual report on the monthly returns of district surveyors, published by the Metropolitan Board of Works, of which the thirtieth has just appeared. The fees received in 1885 were more than double those received in 1856, but there have been waves of advance and decline. The first maximum was attained in 1868, from which year there was a decline to 1873. A rise then took place, and was tolerably steady until 1881, amounting to rather more than eighty per cent. in these eight years. A decline succeeded, and has been nearly continuous since 1881, the fees received for which year amounted to 51,383*l.*, while for 1885 they only came to 41,398*l.* In 37 out of the 71 districts specified in the return, the fees received were under 500*l.* each. In seven they were over 1,000*l.* each, the highest being in the district of St. Giles, Camberwell, where the total fees received amounted to 1,733*l.* The expenses of the various districts amounted to 9,292*l.*, or nearly 22½ per cent. on the receipts. The sums abated or lost came to 2,561*l.*, or a little over six per cent. of the receipts. The number of new buildings erected in 1885 was 7,669, the additions, alterations, and other works being 10,530. Arrears were received in respect of 3,435 new buildings and 2,348 additions, &c. The total number of works dealt with in the report for 1885 was thus 23,982, the highest number, 29,275, having been attained in 1881. The number returned in 1856 was 14,654.

IN the last issue of the *Bullettino della Commissione Archeologica di Roma* (xiv. 9) appear fac-similes of sculptors' signatures from the plinths of statues recently discovered at Rome, near the Via delle Sette Sale. Fragmants only of a few of the statues remain, and these are being diligently pieced together. The signatures, however, are in themselves of great interest for the history of Græco-Roman art, as they throw light on a flourishing school of sculpture down to about the fourth century A.D., at Aphrodisias, the chief city of Caria. The representatives of this school so far best known are Aristeas and Papias, the sculptors of the two famous black marble Centaurs in the Capitoline Museum. Another sculptor, Xeno, of the same city has left us a seated male statue, now in the Ludovisi Palace, on the drapery of which he has inscribed his name and birth-place; also he has left us a Heron, with a long metrical inscription, in which he boasts of Aphrodisias as "happiest of towns," and says that, "trusting in his art he wandered through many cities." It appears from the number of new Aphrodisian signatures that have turned up in Rome that Xeno or some of his successors must have settled in Italy. The plinths are of Carrara marble, so the statues must have been made on the spot. Three of the names bear the cognomen Flavius,—Flavius Xenon, Flavius Chryseros, Flavius Andronicus. These two last appear for the first time, and are, judging from the style of the letters, of somewhat later date than that of Flavius Xenon. He boasts himself a high priest and a man of fame (*διάσημος*).

THE *Berliner Philologische Wochenschrift* (December 25) reports the discovery of a well-preserved bronze statue in the excavations still going on between the Erechtheion and the Propylæa. The statue is 27 centimètres high, and represents a female figure wearing a shirt of mail. Her right hand is stretched out; in her left she holds back a piece of the long robe that falls to her feet; this robe is presumably beneath the coat of mail. The style of the statue is reported to be similar to that of the numerous archaic marble statues recently found. With the figure were discovered twelve bronze vessels,—wine-cups, kraters, and the like. One of these, an amphora, is 29 centimètres high. From the presence of so large a number of bronze vessels it is conjectured that the excavators may be close upon the site of the Chalkotheke, built by the orator Lycurgus. If so the Chalkotheke stood at exactly the opposite corner of the Acropolis to its usually supposed site, *i.e.*, near the modern Museum. But at present this is mere conjecture.

WE are glad to see that the votive Corinthian tablets (in the possession for the most part of the museum at Berlin and the Louvre) are beginning to attract the attention they deserve. In a paper on the "Monuments Grecs Publiés par l'Association pour l'Encouragement des Études Grecques en France (11—13)," M. Collignon publishes eight of the most important specimens in the Louvre: his paper can be had as a "tirage à part." The tablets were found at Pendé Skouphia, a little village close to the Acrocorinthos, by a peasant. There can be no doubt as to their intention, they are exvotos, such as frequently appear on vase painting, and in these particular instances they are manifestly intended to be hung up in a shrine sacred to Poseidon. Probably the shrine got too full, a clearance had to be made, and the old exvotos, having served their end, were thrown outside the temenos to make room for new dedications. Two of the tablets represent Poseidon upright, with the name of the dedicator written pillar fashion (*στοιηδόν*) behind him. A third has Amphitrite with her trident, and the words "I am Aphirite [*sic*], the wife of Poseidon." Another has two horsemen starting for the battle, no doubt under the protection of the sea-god. A fourth has two beautiful swan-heads decorating the end of a ship,—the Greek name, *χηνίσκος*, compels us, if we desire to be accurate, to call them goose-heads, but the beautiful waving necks must have been inspired by a swan's motion. Further, the tablets give us a new potter's signature,—Mi(l)onidas painted (me) and dedicated. The signature of a second Corinthian potter, Timonidas, also appears. He is known to us already by a very curious vase of the shape known as lagynos, found at Cleonæ. The tablet is additional evidence, if any were needed, that Timonidas had his workshop at Corinth. The style of the tablet is more finished than the vase. Besides these mythological designs many scenes from daily life occur, well worthy of study, but which space compels us to omit.

THE Art-Union of London have produced for their annual engraving one of Mr. Leader's landscapes, "Streatley-on-Thames," engraved by Mr. Willmore. It is a good specimen of an old school of line engraving, and the distance is treated with much breadth

and softness of effect. The landscape, like many others by the same artist, is of that superficially sentimental type which appeals best, we suppose, to the popular taste, for which the Art Union, we believe, professes to cater. We are glad that the very large and coarse type of engravings that used to be issued seem to be given up.

MR. EMERSON'S assistant, Mr. Ellis, has thought it incumbent on him, in the absence of his principal, to write to the *Liverpool Courier* and deny our statement that Mr. Emerson made a selection of the drawings of his design for the Liverpool Cathedral for publication in our columns. It is a pity Mr. Ellis did not take the trouble to ascertain the facts before rushing into print. We have Mr. Emerson's letter, dated 6th January, 1886, before us, in which he says :—

"You have full permission to get what drawings from Messrs. Sprague you may require for illustration in the *Builder*, but I do not wish any beyond the following published, from which you may take your choice, viz., ¼ in. scale plan, showing steps at the west end ; west perspective ditto ; south elevation ; east elevation ; longitudinal section, with *enriched chancel* ; transverse section through west elevation, showing steps, &c. ; and interior perspective, and perspective from the east."

The plan and elevation "showing steps,"—an expression twice used,—is the "Design B," which overruns the limits of the site, and which was, as will be seen, the only *plan* that Mr. Emerson authorised us to publish. After this, perhaps Mr. Ellis will write to the *Liverpool Courier* and withdraw his statements.

LETTER FROM PARIS.

THE Ministerial dislocation of the last few weeks has also put a temporary check on the work of the Commission for the 1889 Exhibition; but M. Lockroy, the Commissaire-Général, though turned out with the other Ministers, has been reinstated, and all goes on as before. Besides the architects already mentioned, MM. Contamin, Charton, and Pierron are engaged as engineers for metallic construction. For the architectural work M. Formigé has the collaboration of MM. Gaston Hénard and Devienne; M. Bonvard is in relations with MM. Bergon and Gravigny, and M. Dutert with MM. Blavette and Deglove; lastly, M. Laforcade, the able chief gardener of the city of Paris, is charged with all the plantations and gardens on the Champs de Mars and the Trocadéro. The work has fairly begun. The excavation and foundation contracts have been let, and are about to be commenced, as well as the work for the iron supports of the galleries, which will be commenced in April. This last work is estimated at 2,000,000 francs.

As to the Eiffel Tower, there is talk of certain artistic clothing to be given to it, to show people that we are not quite in an age of iron and electricity; but whether the application of a quantity of coloured faïence will do much to ameliorate the scheme may be questioned.

The machinery committee, on its part, has been studying the question of motive power, which will play an important part in the Exhibition, and will have to be provided to the extent of 2,500 horse power.

The opening of the Hôtel des Postes, which was announced for the beginning of July last, seems to be adjourned to the Greek Kalends, and it is even said that the building will not be utilised by the State, but is to be sold to the Magasins de Nouveautés. This is an exaggeration; the hôtel will not be sold, but improvements will have to be made, the number of pipes and heating centres increased, the artesian wells deepened, and many other expenses gone into at the cost of the shareholders. Whether all this is the fault of the former Minister of "Postes et Télégraphes," M. Cochery, or of the present minister, M. Granet, or of the architect, M. Guadet, may be matter of dispute.

The building of the Guimet Museum in the Avenue de Trocadéro, intended to contain the Oriental collection bequeathed to the city by M. Guimet, is actively proceeding; it will probably be opened in 1887; more fortunate than the long-talked-of Musée of Decorative Art, which is still a matter of talk only. According to the official scheme, this building,—which is to be erected on the site of the ancient Palace of the Cour des Comptes,—is to cost 8,876,000 francs. It is a great outlay for what is after all only the embryo stage of a museum; and thinking persons (there are some still) say it would be much better, instead of all this ostentatious expense, at once to purchase or rent a more modest building in the region of the bronze or furniture establishments, where the Parisian artisan may come and study the work of the finest epochs of French art.

At its meeting again the Chamber will probably proceed to consider the interrupted Metropolitan Railway project, with the Minister of Public Works and the Parliamentary Committee. The latter has suppressed the line from the Halles to the Place Denfert-Rocherau, by which move a saving of thirty millions of francs, making the whole cost 190 millions, instead of 220 millions. But how long it will be from this arrangement to the commencement of the work, and what portion will be ready for 1889, who shall say?

While waiting for the Metropolitan Railway, Paris is to be amused by an International Exhibition, outside the walls, in honour of the fiftieth year of the establishment of railways in the country; for which exhibition the Municipal Council has devoted a very large space in the Bois de Vincennes. The first line opened in France was, in fact, that of St. Étienne, not that of Paris and St. Germain; but the matter is really a private speculation of considerable interest to railway people, and not quite deserving the title of "International."

Though we have already in Paris Houdon's statue of an aged and decrepit Voltaire, and Caillé's presentment of him in middle age (a work heavy and devoid of character), the Municipal Council have accepted a statue of a young Voltaire, by M. Lambert, a sculptor of talent, who is owner of the Château de Ferney, where Voltaire lived, and who, therefore, possesses all the documents and data for making a complete likeness. The statue is not a bad one, but the fashion of Voltaire statues of all ages rather recalls the story of the showman who exhibited the skull of "Voltaire when a child."

In regard to this subject, we may correct a mistake in our last letter, as to the statue of Voltaire which M. Monnier has been commissioned to superintend at St. Claude; the sculptural portion of this is to be by Mdlle. Gagneur, who exhibits annually in the *Salon*, under the pseudonym of "Syamour."

The Municipal Council has voted 45,000 francs for a pedestal for the Étienne Dolet statue by M. Guilbert for the Place Maubert. The work itself is very mediocre, but, as the pedestal will be ornamented with bas-reliefs of which the most important will be "the City of Paris reviving Free-thought," one may presume that the object of the expenditure is anti-clerical rather than artistic. In regard both to this statue and that to Étienne Marcel there are no materials for a historical likeness, the portraits being merely imaginative. In regard to this latter statue, there is a curious piece of litigation going on, the founder having been under contract to cast it in one piece, while the sculptor, M. Marqueste, affirms that it has been cast in fractions. The question is submitted to a special committee.

The Académie des Beaux Arts has been enriched with two fine busts in marble; one, that of Victor Massé, is the work of Aimé Millet; the other, that of Ambroise Firmin Didot, has been presented by the family of the celebrated printer, who had commissioned it long ago from the sculptor Perraud. We have also to note with admiration the recent fine bust of the Abbé Lagarde, founder of the Stanislas College, from the chisel of M. Chapu.

The *Journal Officiel*, on the favourable report of the Conseil d'État, has at last definitely put on record the acceptance of the magnificent gift of the Duc d'Aumale; and the Institut has been authorised, on certain conditions imposed, to accept the ownership of the domain of Chantilly, and of the books and furniture and works of art in the château. The *Journal* adds that "at the expiration of the title of the Institut, and after the reservation of the annual sums necessary for the endowments created by the donor, the revenues of the domain will be consecrated to the keeping up of the buildings, parks, and collections, the development of the library and galleries, the creation of pensions to men of science, artists, and literary men; the foundation of prizes to encourage those entering on the careers of science, art, or literature; and, lastly, to all expenses incidental to visits of the public to the Musée Condé." We may add here that the fine equestrian statue of M. Paul Dubois, an illustration of which appeared in our pages on June 19 last, has been placed on its pedestal in the courtyard of the château.

The recent losses in the *personnel* of the École des Beaux Arts have been filled up by new appointments. M. Delaplanche, the sculptor, has been entrusted with the modelling classes in the place of the lamented M. Hiolle; MM. Mauduit & Julien, the architects, have been also named professors, the first of construction, the second of perspective, in place of MM. Bruno and Chevillard.

The competition for a new school for girls in the Rue des Martyrs, before referred to, has been decided by a jury, presided over by M. Alphand; the design of M. Cassien-Bernard being placed first, those of M. Genuys and M. Breton second and third respectively.

We learn that on the recommendation of the Conseil d'État, the administration intends to "désaffecter" the Church of the Assumption, Rue St. Honoré, against which the anger of the Municipal Council has been long directed. Why should this building have escaped the zeal of the first Revolution? The church, which served as parish church before the erection of the Madeleine, was built about 1670, from the designs of Charles Errard, one of the twelve founders of the Academy of Painting. Eight Corinthian columns support a portico in front of the church, which is in the form of a rotunda with a large cupola, painted in fresco by Delafosse. This maladroit laicisation will not alter the character of the building, and, speaking on artistic grounds merely, it is to be regretted that this system should be pursued of endeavouring to bring under the domain of the State all the great monuments of architecture erected for religious purposes.

Politics mixed up with art generally produce unfortunate results. Without going back to David, who expiated in exile the part he had played in the violent deeds of the Convention, we have seen, nearer to our own day, Gustave Courbet play, in the evil days of the Commune, the part which we all know. The sculptor Baffier, inflamed possibly by such illustrious examples, endeavoured the other day to stab a deputy whom he regarded as too lukewarm. M. Baffier, whose recent works have shown more of artistic violence than artistic feeling, was the author of a "Marat" purchased two years ago by the Municipal Council. Was his attack on M. Germain Casse the result of political fervour or mere derangement of brain? Judging by some of his recent works, especially the "Jacques Bonhomme," in the *Salon* of 1885, we should lean to the latter conclusion.

The artistic world has learned with great regret that poor François Bonvin has been struck with blindness and paralysis. This conscientious artist, to whom we owe so many pages instinct with observation and talent, is in danger of want, and a committee has been formed to organise a sale of his work, as was done fifteen years ago in the case of the painter Anastasi, who also became blind, and lived to be forgotten by those who had formerly admired his works.

Several artists of merit have died during the past month. The painter Joseph Mélin, who has died at the age of 72, had been a pupil of Paul Delaroche and of David d'Angers. He was especially occupied with animal painting, and received medals in the *Salons* of 1843, '49, '55, and '58. We may mention also M. Victor Deroche, a landscape painter of talent; M. Paul Avisse, one of the best designers for Sèvres ware; M. Abel Orry, another landscape painter, who has died at the age of 47; and M. Edouard Lièvre, a former pupil of Couture, who had recently turned his attention to decorative art, and is the author of some very interesting works on furniture.

A curious exhibition of ancient pictures will be open, by the time these lines appear, at the École des Beaux Arts, for the benefit of the sufferers from the inundations in the South of France. One cannot too much praise the zeal and generosity of collectors,—usually very jealous of their treasures,—who at the call of charity are ready to lend their most precious and valued works. It is superfluous to add that the Rothschild family play the most important part among the lenders of pictures. The Baroness de Rothschild contributes a fine Teniers, an admirable landscape by Hobbema,

and a "Jeune Fille à la Rose" by Goya. Baron Alphonse de Rothschild sends a "Portrait of a Young Man" by Raffaelle, the "Singer" of Ostade, and a fine example of Cuyp. The Wouvermans and Cuyps of Baron Gustave are there in great force, and among the loans of the Baron Edmond is the famous "Oak" of Ruysdael. The Spitzer collection has also been despoiled of some of its finest works, including the portrait of Edward VI. (of England) and of the Duc d'Albe, by Antonio More, a curious Cranach, and a sketch of the "Mars" which Rubens painted at the Pitti Palace. M. Hector Crémieux has lent three fine Géricaults. Among works of the English school will be Lawrence's portrait of the Duc de Richelieu, a "Mother and Child" by Reynolds; and among less known works are some landscapes by Hubert Robert, pictures by Van der Helst, and a bull-fight by Goya, the latter lent by M. Henri Rochefort, who also sends a curious painting of Æneas at Carthage, by Tiepolo. The exhibition will be a very interesting one, and, probably, profitable for those in whose interests it is being held.

TWO OLD PARISIAN JEWELLERS: BOURGUET AND BOURDON.

I.—JEAN BOURGUET.

"Mon dessein en faisant ce livre a esté d'instruire la jeunesse, et de soulager leurs maitres, c'est pourquoy c'est aux jeunes gens à qui j'adresse ces instructions, les exhortans de faire attention à ce qui suit et à ce qui est écrit au bas de quelques-unes des planches de ce livre.

Premièrement, il est certain que pour devenir bon orfeure il faut commencer à bien désiner, au moins l'ornement. Pour cela je leur ay fait plusieurs tiges de feuilles d'une grandeur suffisante pour pouvoir les désiner au crayon ou à l'encre de la Chine, de plus je leur produit aussy deux belles grandes frises qui sont desja au jour il y a du tême pour les accoutumer à bien refendre une feuille avant que de commencer à graver; je trouve cela si nécessaire que je ne pense pas qu'on puisse réussir aisement sans cette étude; ceux qui me croiront en demeuront convaincus par l'expérience, et ils verront que quand ils commenceront à graver, cela leur donnera de la facilité et du goût et même pour le pinceau; ce livre les conduira pas à pas par la quantité des morceaux de taille d'espargne et de bas reliefs en émail de toutes sortes de formes et grandeurs,—oval, rond, caré, et d'autres figures, afin de les accoutumer à remplir toutes sortes d'ouvrages. On remarque que quand ils n'ont jamais fait que des ovales, des ronds, et des carés ils se trouvent embarrassés quand ce qu'ils ont à faire a une autre forme; le grand nombre d'élèves que j'ay fait me confirme dans ce que je dis icy; je leur donne dans le bas de cette feuille plusieurs têtes de bagues, où ils remarqueront comme il faut premièrement tailler en taille basse et nette, en sorte que quand on a émaillé, et usé, les contours soient bien formés afin qu'il n'y ait plus que les coups de force à donner au pinceau, car pour les tendresses ce doit être l'or qui les forme, ce que je n'ay pû exprimer que par un trait fin, qu'il ne faut pas absolument faire au pinceau. C'est pourquoy tout consiste à tailler nettement, et de bon goût; avec un peu de soin et d'application ils connoitront la vérité de ce que je dis; mais si quelques-uns sont assé négligens pour ne pas faire attention à ce que je leur enseigne qu'ils s'enprennent à leur peu de bonne volonté; si quelques-uns en profitent qu'ils m'en sachent gré. Pour moy, j'ay fait ceci de bon cœur pour leur rendre service; Dieu leur fasse la grace d'en profiter."—*Preface to Bourguet's "Second Livre de Taille d'Esparque."*

AMONG some absolutely or comparatively unknown masters of decorative art with whose work we propose making our readers acquainted, we have selected for our first article two French jewellers who lived in Paris in the early part of last century, Jean Bourguet and Pierre Bourdon. Each of them published a little oblong octavo book full of the choicest designs from his own hands. The curious piece of old French at the head of this article forms the preface to Bourguet's volume; it is packed full of lessons for all who are learning and all who, having learned, have also learned to love, the art of decoration. So far as we have been able to ascertain, the books are not only not to be procured, but scarcely to be seen in this country. The only copies we have traced are an almost complete set of the plates of both books, very clean and well preserved, in the Print-room of the British Museum, and one copy of Bourdon's work, in a fair state of preservation, in the Art Library of the South Kensington Museum. Possibly the book-boxes on the *quais* by the Seine may contain many scattered fragments of the masterpieces of these two old and, we trust, in their days, respected citizens of La Belle France; but, alas! beyond such few copies of their books as may still exist, all their memorials have perished with them. An industrious and peaceable citizen's life naturally contains but few incidents worth recording: so, perhaps, after all, it is not to be wondered at that the art books are almost silent about these two jewellers. But it is a matter of wonder that not their lives merely, but their works, are passed by in solemn silence by the compilers of our books of reference. We have been unable to trace a single recorded opinion upon the artistic excellence of those works in all the host of books which have been written on the art of decoration. Even Reynard, in his valuable album of reproductions of the best specimens of the decorative work of the fifteenth to the eighteenth centuries, has only condescended to give us one page from each book, and Reynard, with all his appreciation of the beauties of the art, refrains from giving critical opinions on any of the plates he reproduces. Designs good, bad, and indifferent are given one after another, the reader, or rather the beholder, being left to draw his own conclusions from, and make his own reflections upon, them. It is our pleasant task, therefore, to commence this series of articles with two artists so completely unknown as Bourguet and Bourdon, and we may proceed at once to judge them by their works, so that by them in the future they may be known.

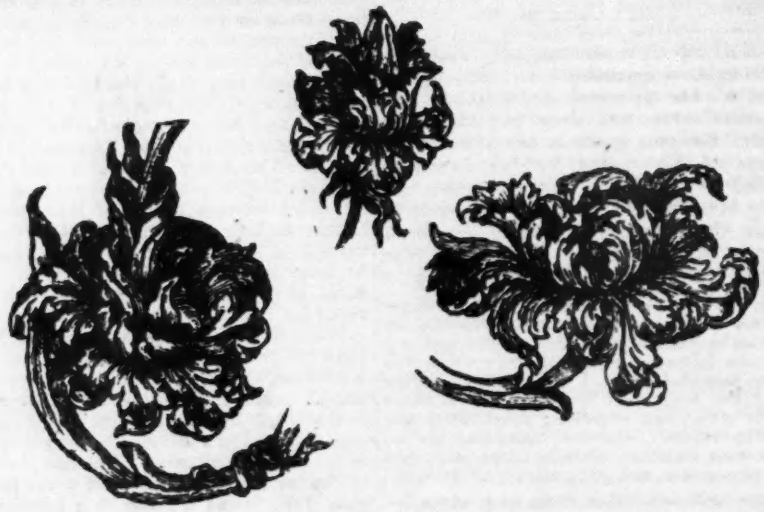


Fig. 1.

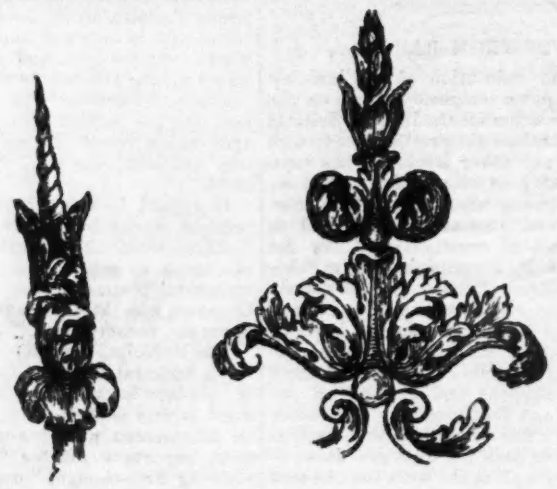


Fig. 2.

Fig. 3.

Jean Bourguet, then, lived in Paris quite early in the eighteenth century. (The date given in Bryan's Dictionary is "flourished about 1702.") His "Second Livre" (which from certain *scintillæ* of internal evidence we take to mean second edition) bears date, however, 1723, and he certainly must have been at the zenith of his powers at that time. Its title runs thus:—"Second Livre de Taille d'Espargne, et de Bas Reliefs en Esmail, ou noir d'Escaille, Bas Reliefs pour Tabatières et Ouvrages d'Orlogerie, par J. Bourguet, Marchand Orfèvre à Paris." The first page contains the preface already given, very neatly engraved. We cannot do better than at once to make some notes upon the lessons he teaches in it.

There is a charming old-world sincerity and cordiality about the exhortation to the young pupils, for whose benefit he undertook his labour of love; and about the kindly remembrance of the pangs endured by their masters,—pangs which, doubtless, had given him the acutest suffering during the lessons he gave to his own apprentices. Then there follows a short application to his own peculiar industry of a principle which in truth lies at the root of the whole matter, which is the keystone of all industrial art. "First, it is certain that to become a good gold and silver smith, you must begin by knowing at least how to draw and design [the use of the word *désiner* seems to be clearly elliptical] ornament." The true function of ornamentation is surely a very high one: it is

one of those mysterious influences which charm away the tedious monotony of life. What would existence be like under a sky of never-changing grey or endless sunshine? Those who have been forced to bear it tell us it is unendurable, and that a ray of light, or a patch of cloud or shadow, is welcome as flowers in May. Could we live in a world where bricklayers and masons only built dead walls? Watch how the light, even in this dull, smoke-bespattered London of ours, glances off the changing curves of the massive cornice on that large commercial edifice over the way, which day by day brings premature night upon our office. Mark how the eye wanders over the monotonous surfaces, seeking rest and finds it in that line of light, and there will be no uncertainty in the answer. Ornamentation makes our world a world of variety instead of a dead-level world of monotony, and variety is always very charming. In all forms of work, from the highest to the lowest, ornament has its proper place; in some that place is a more prominent one than in others; but a place it must have always. And yet it is by no means certain,—indeed, in a great number of cases it is assuredly uncertain,—that the workers, master and men, do devote the proper attention and study to it. "Oh! anything will do." "Shove in something, somehow and anywhere." The matter and the manner, the form and the execution, are too often utterly neglected. The ghastly devices that meet us on all sides as we take our walks abroad tell their own gruesome tale of neglect of the commonest ideas of beauty and of grace. This principle, then, which

Fig. 4.

Bourguet first insists upon, with regard to his own profession, we take to be a true, a lasting, and a universal one. Are you architect? Are you builder or stonemason? Are you worker in woods or metals or precious stones? Do you weave the soft threads of silk or wool, or homelier cotton? Do you mould the clay into vessels whose uses may be noble or ignoble? Do you put the commonest of the products which Nature has laid at your feet to the services which necessity has taught? Before you can do any of these things well, before the world can take pleasure in looking upon your work, above all things it is of the first importance that you should be able to devise some pleasant breaks to the uniformity of the broad surfaces which first come from your hand. This is the first rule Jean Bourguet instilled into the minds of those who sat at his feet:—If you would become a good goldsmith, learn the nature and the power of design. To this end he devotes some of his plates exclusively to studies of conventional or decorative foliage. The leaf he makes use of without exception is the deeply-serrated acanthus, which has so often, and with so much charming variety, stood in such good stead to the art-workers of many centuries. His methods of treating the leaf, of twisting out floral excrescences, and of manipulating the stems, is based, as it seems to us, entirely on that of Israhel van Meckenen, some of whose charming productions we considered in our issues of Dec. 5 and 12, 1885. Van Meckenen's work certainly found its way into France at some time or other; the writer of these articles remembers in his early years to have seen in a cheap French book of alphabets some reproductions of Israhel's celebrated alphabet, stated to have been copied from the collections of the Luxembourg. But Bourguet was not a mere servile imitator of the great German master: he studied him at his best, he caught the grace and charm and all the niceties of his spirit, and thenceforward made it his own.

If we look carefully at the three floral studies given in fig. 1, we think that this conjecture amounts to an absolute certainty; the two finials given in fig. 2 reveal more of the draughtsman's own spirit, working in new lines, and imbuing outlines more formal than Van Meckenen ever attempted with the master's grace. In addition to the plates on which he drew a considerable number of these *tiges de feuilles*,

Fig. 5.

he produced two very fine scrolls, which, with pardonable vanity, he calls "*deux belles grandes frises*"; they are, indeed, masterpieces of constructive skill and of the very greatest beauty. In fig. 6 we have given a sketch of the best of the two, and in fig. 5 one

Fig. 6.

of a smaller and more compact composition of the same class. The lesson which he expressly meant to force upon the attention of his pupils in these acanthus studies was, as he expresses it, "*pour les accoutumer à bien refendre une feuille avant que de commencer à graver.*" *À bien refendre*, that is, to cut or split up the outline of the leaf properly. The ultimate success of the design must obviously depend on the care and accuracy with which this is done. The deeply-serrated leaf of the "bear's breech" has always exercised the greatest fascination over the designer, perhaps on account of the great difficulties which it puts in the way of accurate conventionalising; but when they are overcome, the result more than repays the labour which the achievement has cost. It is, of course, perfectly easy to let a pupil copy a model of an acanthus leaf and "lay it on" where it may be wanted; but this feeble method of instruction would not suit an artist such as Bourguet was; his scholars must realise the why and the wherefore which make the model worthy to be copied; they must understand the principles on which it is constructed, so that afterwards they may be able to work independently of the work of others; that they may be able to adapt their foliage to the necessities of every case, and that each leaf should, as in nature, have its own peculiarity and its own charm.

It will not perhaps be out of place here to dwell shortly on what we understand by accurate conventionalism. We have on previous occasions insisted on the importance in ornamentation of keeping the line between representative art and decorative art rigidly fixed. We have also pointed out how decorative art can derive its inspiration from nature without passing from the right to the wrong side of this line. When it does go to nature for inspiration it conventionalises natural form, adapting it to the capacity of the materials in which the work is to be executed. But if, while drawing from this fount of inspiration, it adopts nature's work in part only and in part rejects it, the result can only be commonplace and often vulgar and offensive. As in the broad structure of conventional work generally nature's tangential law cannot be neglected with impunity, so in the smaller detail of the conventional foliage a most rigid observance of the laws of leaf-growth is an absolute necessity. To illustrate our meaning, let us consider one of the simplest of the well-known decorative leaf forms, the ivy, so much used by the Mediæval illuminators, either with its three or five points. As we all know it, it is difficult to realise a figure more full of simple grace; but imagine one of the parts unduly distorted or one of them omitted, or the angles at which the side lobes spring from the stem altered beyond the limits which Nature allows herself; the result would be at once most hideous and uncouth. Or imagine one of the petals of the Tudor rose displaced and made to spring from nowhere in particular; or the whole of the petals, instead of clustering round the centre, decentralised. Could anything more grotesque, uncomfortable, or impossible be devised? And so it is with the serrations of the acanthus leaf. Nature has her own laws, which she implicitly abides by in furnishing the leaf with these indentations. They are closely allied to those which govern the spring of the fern fronds, although in that plant they are more easily to be discerned. Each serration is, in fact, a separate leaf with its own separate structure; but instead of standing out distinctly, as in the fern, the greater part of its form is merged in the main body of the leaf, leaving nothing but the points distinct, the size of these distinct points varying in every leaf and in every lobe. The main stems of all the dependent lobes in nature are connected in a clearly-defined manner with the main stem of the parent leaf, and their connexion must be preserved in the conventional foliage. In much of the acanthus foliage with which our houses are beautified in the present day, it is a perfect puzzle to find the stem of the lobes, and, when found, to discover what on earth it has to do with the main body of the leaf. The same principle, it need hardly be said, must be observed in the "bellying" of the leaves. If the decorator who uses the acanthus for his model ignores this structural principle he can only produce something which cannot fail to be repulsive to the eye.

But this principle, as we have said, is only an illustration of the broad general one; in both the large designs Bourguet has shown himself a master of the broad principles of construction. In fig. 5 he has adopted with the greatest fidelity the general idea of the plant growth of the acanthus, tapering gradually with less and less foliation up the flower stem. In fig. 6 the design is based on an imaginary and fanciful plant growth, but the flow of the curves is based with the most rigid fidelity on Nature's

tangential law; the whole of it is wrought with the most subtle charm, the grace of the drooping flower being especially noticeable. We think that these *deux belles grandes frises* will well repay the most careful study.

There is a dash of worldly wisdom in the worthy jeweller's next remark, and we cordially echo his words, for there is nothing so difficult as getting people with ideas of their own, and who, having a certain amount of taste, consider that they know all about the matter, to realise that there are such things as canons of decorative art; or, if they like it better, a right and a wrong in decoration. "Those who believe what I say, experience will confirm . . . but if there should be some negligent enough not to pay attention to what I am teaching them, they must lay the blame on their own lack of good will."

Another of Bourguet's remarks we cannot pass over:—"It is to be observed," he says, "that when people have only ornamented ovals, circles, and squares, they find some difficulty when they have to ornament some other form. The great number of pupils I have had confirms me in what I am saying." The necessary correspondence between the structure of the ornament and that of the space ornamented is another of the great canons of the art.

In figs. 3 and 4 we have given some specimens of Bourguet's work where the play of his fancy was confined within set spaces: fig. 4 is probably for the lid of an enamelled snuff-box; the others are medallions in the same style designed for the embellishment of the pages of the book. There is a wonderful charm in the way in which in all the cases the design adapts itself to the outline without the slightest appearance of constraint, and also in the remarkable manner in which the surface is covered. The use of straight lines occasionally breaking up the flow of the curves is also noticeable, in every case without in the slightest degree marring the continuity of the design, but rather giving it a force of its own. The other specimen given is a curious arabesque pattern of great originality and beauty.

Here we must leave the excellent Jean Bourguet, master of his craft, and worthy instructor of many apprentices, who, doubtless, in their day also gave good work to the world. The instruction that he conveyed to them he preserved in his carefully-engraved pages; it is not too much to hope that 160 years after their first appearance the remnant of them which survives may still be pregnant with life and vitality to influence and instruct the youth of this later generation, "*et de soulager leurs maîtres.*" "If some shall profit therefrom let them admit their indebtedness to me; for myself I have done this with good heart to do them service. May God give them grace to avail themselves of it."*

* To be continued.

LONDON AND THE SESSION OF 1887.

WITH the last day of November expired the time for the official deposit of plans and notices relative to the various public works which will be submitted to Parliament in the Session next ensuing. The numbers of railway Bills and provisional orders are both less than on the same occasion in 1885, when the totals were respectively 53 and 62. This year they amount to 48 and 40. Of plans 132 are lodged, as compared with 176 twelve months ago. So similarly with the miscellaneous and tramway groups, the respective figures being severally 48 (1885) and 33 (1886); and 13 (1885) and 11 (1886). Various "notices" are also given by the Metropolitan Board of Works for projected operations, as well as by the School Board for London in respect of a further batch of provisional orders for supplying additional school accommodation. Confining our observations for the present to within the home district we proceed to briefly indicate what are the more important schemes under contemplation.

The School Board schedule a total of twenty sites, representing a gross area of about 13¼ acres. A deduction, however, will in effect be made of four sites, equivalent to, say, either 2¼ or 3¼ acres, from the grand total as a set-off on the score of alternative sites. The twenty sites fixed upon are situated in the parishes of St. Peter and St. Paul, Hammersmith (2, being alternative); St. Mary, Stoke Newington (3, two of them being alternative); St. John, Hackney (1); Streatham (1); St. James, Clerkenwell (3, one being alternative with that in Islington); St. Ann, Limehouse (1); St. George-in-the-East (1); St. Giles, Camberwell (3); Islington (1, being alternative with one in Clerkenwell); Wandsworth (1); St. Paul, Deptford (1); and in the Hamlet of Penge (2, being alternative). The plans for the parcels of land may be seen at the offices of the Board, on the Victoria Embankment; and the provisional orders will be submitted, we believe, for confirmation to the Educational Office, Whitehall, for ultimate ratification by the Queen in Privy Council.

We will now turn to the Metropolitan Board of Works. In virtue of a Metropolis Management Act Amendment Bill the Board seek to get conferred on them and on certain vestries and district boards further powers over the laying of mains and pipes for water, gas, or hydraulic power purposes; and this Bill will provide for giving the vestries and boards additional powers as to the formation of streets and roads, besides extending, it may be, the powers of gas and waterworks companies. Their Theatres and Music Halls Bill is designed, as last year, to extend their "powers as to the inspection of houses or other places of public resort . . . . kept open for the public performance of stage plays; and of houses, rooms, or other places of public resort . . . . kept open for dancing, music, or other public entertainments of the like kind." This Bill may require that before such a place is licensed it shall obtain a Board's certificate, to run for a year, as to the efficiency of its structural and other arrangements and appliances for public safety; and that such places shall be deemed to be unlicensed unless such certificate have been granted, and also as to the efficiency of arrangements, &c., for protection from fire; and that the Board make by-laws or regulations for carrying out, under penalty, their requirements. Under another Bill, also as last year, the Board seek to alter so much of the Metropolitan Fire Brigade Act, 1865, as relates to the contributions towards expenses of carrying out the Act which are to be paid by companies insuring property from fire, and to fix the companies' contributions on a new basis. The Board's intentions are very vaguely expressed, but in the result they mean that the limit of one ½d. rate on the gross value of the property, as defined in their Loans Act, 1869, shall cease to be the maximum estimate. They propose to make a bridge across the Surrey Canal in Canterbury-road, Deptford, in lieu of the existing swing-bridge, and to secure that the cost shall be partly borne by the Camberwell Vestry and the Greenwich District Board of Works; and to make a means of communication beneath the Thames at Blackwall in the shape of a tunnel (single or double) for vehicular,—but not tramway,—and pedestrian traffic,—the tunnel with its approaches to lie between the Artichoke Tavern, Poplar, and Ordnance Wharf, Greenwich. They will ask for an extension of the time which is now limited by the Metropolitan Bridges Act, 1881, and their own Bridges Act, 1884, for the compulsory purchase of lands for the new Battersea Bridge and its approaches, together with the alteration of Vauxhall Bridge. As touching open spaces, they propose that the Commissioners of H.M. Works and Public Buildings shall transfer to them all functions in relation to Victoria Park,* Battersea Park (250 acres, *olim* Battersea-fields), Kennington Park (25 acres, *olim* Kennington-common), the public garden adjoining to the Museum at Bethnal-green, the Thames (Chelsea) Embankment, including the river wall and works in connexion therewith; and Westminster Bridge, with its approaches. The costs of maintenance would thus be shifted from the Consolidated Fund on to the metropolitan ratepayers, so far, indeed, as they are not met by the incomes derived from the properties in question. It is further contemplated to enable the Lewisham District Board to acquire and maintain as an open space or recreation-ground a parcel of land between Dulwich-road and Laurel-grove at Penge, the Metropolitan Board defraying one-half of the expense; to purchase and throw into Bostall Heath, Plumstead, a piece of land on its northern side; to make an addition to Brook-green, Hammersmith; and to agree with the owners for purchase of certain houses, buildings, and lands, —about 32 acres in all,—known as Ravenscourt Park, Hammersmith, for future maintenance as a public recreation-ground. Under this head, too, falls their decision to insert powers into their Various Powers Bill for the transfer to them of all the duties and privileges at present discharged by the Wandsworth-common Conservators. Here arise certain vexed questions, and we are told that the Board's proposals do not receive the unanimous approval of the inhabitants mostly interested. The Common, or rather the 160 acres which alone remain open, yet retains some *beaux restes* of its once suburban attractions. There is a strong local feeling against its being subjected to the ultra-Puritanical *régime* that prevails at, for instance, Hampstead Heath and Clapham-common. Within our own memory that charming bit, the old "Black Sea," has been appropriated for the villas of Spencer Park; whilst the dealings of the Commissioners of the Patriotic Fund with the sixty acres which they secured about thirty years since scarcely encourage the Conservators to hope that the Common might not eventually disappear.* They assert that from 1794 to 1866, as many as fifty-three enclosures were made, varying in area from a quarter to ninety-six acres, that the total area of common land enclosed during the past century in Battersea and Wandsworth parishes alone covers not less than 500 acres, and that nearly 3,000*l.*, locally subscribed, has been spent in preserving the 160 acres which are left. We may here add that, as we mentioned two or three weeks ago, an adverse poll of the Hornsey ratepayers has decisively shelved, for the present, the Local Board's scheme for the sale to them by the Ecclesiastical Commissioners, for 25,000*l.*, of the fifty-three acres known as Churchyard Bottom Wood, Highgate. It is contended that the Commissioners do not own the freehold to sell, but that they, as vested with manorial rights, could be compelled to keep that area open for public use and enjoyment. Mr. H. R. Williams's exertions largely contributed to the successful negotiations whereby the neighbouring Gravel Pit Wood was acquired, without purchase, for the care of the Corporation of London, and it is to be hoped that no legitimate efforts will be spared to complete his good work.

The Corporation of London are minded to construct a new approach to Leadenhall Market by altering and straightening the existing thoroughfare leading (westwards) from Lime-street, by the Pewterers' Hall, to the market. The changes will be made in the parishes of St. Dionis Backchurch and All Hallows, Lombard-street. They will also apply to Parliament for an Act whereby at all municipal elections within the City limits the voting, in case a poll be demanded, shall be taken by ballot.

Of railway schemes the first in point of magnitude is that promoted under style of the West London Extension and Commercial Docks Railway. It is proposed to construct a line from the West London line, at a point just north-east of Clapham Junction, to a point in Onegar-yard by the Norway Dock of the Surrey Commercial Dock Company. Its several junctions with the East London, South London, Thames Junction, and North Kent lines will add considerably to the bewildering ganglion of lines that already exists in the market gardens between Hatcham New Town and Deptford. This Bill empowers the new Company to purchase, of the Dock Company, the Grand Surrey Canal and its branch, known as the Peckham Branch, and the Croydon arm or Railway Lay-Bye. And since it provides for the discontinuance of such canal with its branches, and for relieving the two companies from any obligation to maintain the same, we gather that part of the proposed railway will lie in the bed of the canal, between Camberwell-road (eastern side) and the Russia and Norway docks of the Dock Company. With this may be compared a recent project for laying a railway in the bed of the Regent's Canal. The direction planned out for the new railway brings back to mind King Cnut's cutting a trench from Redriff (Rotherhithe), over against Wapping Old Stairs, to Lambeth, across the morasses of Bermondsey, Southwark, and St. George's Fields. There

* Nearly 300 acres. Its prime cost was covered by the sale (1841) to the second Duke of Sutherland, for 72,000*l.*, of the Crown lease of York (now Stafford) House, St. James's Park. *Vide* statutes 4 and 5 Vict., cap. 27, and 5 and 6 Vict., cap. 20.

* The Patriotic Schools were erected in 1857 (girls') and 1870 (boys'). The latter, with about 11 acres, has been sold (1882) for 30,000*l.* to the Governors of Emmanuel Hospital. A fence has been set up to separate the 20 acres not needed for the former, and this land the Commissioners have leased for farm buildings and a house.

can be no doubt that such a canal was really made in the course of the siege of London by the Danes, though it failed to answer the purpose designed for transporting shallow-draught vessels, or, rather, galleys, to westwards of London. There is some evidence that the same sovereign also made or devised a similar canal around the northern side of the City. The former trench is reputed to have been used as a tideway during the building of Peter of Colechurch's stone bridge across the Thames. The Great Eastern Railway Company have in view a branch from their Colchester line in St. Mary's, Stratford-le-bow, to Victoria Park, with a junction to the thickly-populated and just-incorporated borough of West Ham. They mean to enlarge their Liverpool-street terminus, and to widen the railway leading thereto, along the eastern side thereof (the North London Railway being to the west), for the length between Norton Folgate and Two Swan-yard. The enlargement of Liverpool-street station and the line northwards will involve the removal of St. Botolph, Bishopsgate Without, ward and parish schools, with the chapel and curate's residence appertaining to them in Primrose and Skinner streets. We can merely mention the new City of London and Southwark Sub-way (Kennington Extension), and the Latimer-road —at Notting Hill—and Acton Railway. On the other hand the London, Hendon, and Harrow Railway is abandoned. The North London, South Eastern, Metropolitan, Lewisham and Greenwich and District Tramways are generally to be extended in various directions. Of a scheme affecting Olissold Park, Stoke Newington, and of the Government New Bankruptcy Offices Bill we must reserve our notice, for the two sites concerned demand a few words in regard to their historical and topographical features.

THE RATEABILITY OF MACHINERY.

"THE decided cases upon the question of the rateability of machinery exhibit considerable difference of opinion among the judges as to what is and what is not rateable, differences which it is impossible to reconcile." This is the statement to be found in the latest edition of Mr. Castle's well-known work on the law of rating. A few pages further on he thus alludes to the case of Laing *v.* The Overseers of Bishopwearmouth, "The most recent case seems to have unsettled the law more than ever." Under such circumstances as these, the case of Regina *v.* The Tyne Boiler Works Company (Limited), which was recently decided by the Court of Appeal, seems to deserve the most speedy notice; for it can scarcely be questioned that it puts an end to the doubt which has recently been felt on the subject, and, as a decision of the Court of Appeal, must be regarded as settling the law upon this point. In effect, though not in name, it was an appeal against the decision in the Bishopwearmouth case, because the Justices at Quarter Sessions, and also a divisional court of the Queen's Bench Division, acted on that decision, so that the propriety of the decision in the Bishopwearmouth case came directly under review by the Court of Appeal.

In the Tyne Boiler Works case, the machinery as to which the question arose consisted of a hydraulic riveting machine, resting by its own weight alone on a cement foundation, and of two travelling cranes, running on rails fixed on balks of timber. There was no intention that these articles should be permanently annexed to the works, and it is clear they were not permanently attached to the ground. In the Bishopwearmouth case some of the machinery was bolted to the ground, but in a manner that enabled it to be removed at will, and some, as in the last case, was retained in its place by its weight only. In delivering judgment in the former case the late Chief Justice Cockburn observed that all the machinery was rateable,—"The whole of it, though some of it may be capable of being removed without injury to itself or to the freehold, is essentially necessary to the shipbuilding business, to which the premises are devoted, and must be taken to be intended to remain permanently attached to them so long as these premises are applied to their present purpose." Now, let us follow up this dictum with the rule as enunciated last week by the Master of the Rolls:—"Things on the premises are to be rated which are there for the purpose of making and which make premises fit, as premises, for the particular purpose for which they are used; these ought to be taken into consideration, as enhancing the rateable value of the premises." Therefore it is now quite clear that the doctrine that machinery must be physically attached to the soil in order to be rateable, or, it would be more correct to say, to be included in the rateable value of the premises, is now absolutely at an end. Again, the test proposed by Mr. Castle, viz., whether such machinery would be landlord's or tenant's property from year to year, seems now equally to have no legal authority. It is, no doubt, true that this decision may cause some difficulties, because it may be that things not hitherto included as adding to the rateable value of premises will, in future, have to be taken into account. Furniture is not rateable, but would a billiard-table in public billiard-rooms be regarded as adding to the rateable value? We mention this as an instance of an article which may be regarded as belonging to two classes. Difficulties or no difficulties, however, there can be no question that this decision of the Court of Appeal has finally settled a point upon which there has long existed doubt, though the balance of judicial decisions seems to lean towards the solution now reached by the Court of Appeal.

MAP OF LONDON, SHOWING THE BOUNDARIES OF SURVEYORS' DISTRICTS.

WE publish this week the first section of a map of London, showing the boundaries of the Surveyors' districts under the Metropolitan Board of Works, accompanied by a list giving the addresses of the district offices and their hours of business. The remainder of this map will follow in three other sections with the three succeeding numbers of the *Builder*, so arranged that the four can be mounted as one map if desired.

The boundaries have been put on with great care by a draughtsman who had access to the best documentary information, and we hope that the map may be of use to architects and builders, especially when on work near one of the district boundaries, when a mistake as to the actual district may easily be made, and has often been made, resulting in loss of time and other inconvenience which, we hope, may be obviated henceforward.

Illustrations.

THE HÔTEL DE VILLE, PANTIN.

WE have previously given illustrations of two of the suburban Town-halls or Mairies rising up around Paris, those of Neuilly* and St. Denis†, and we give this week an illustration of another more recent erection of the same kind at Pantin, one of the most important communes of the Department of the Seine, the population of which has been augmented since the war by a great number of emigrants, or immigrants, from Alsace. The previous town-hall was a mere villa, "une folie," as it was called, originally erected by the Marechal de Soubise for a certain lady once famous in the dancing world and otherwise. The new building, erected from the designs of M. Léon Guélorget, has now furnished the inhabitants of Pantin with an official building more adequate in its requirements as well as more dignified in its origin.

The new Hôtel de Ville occupies a central site between the houses of "Vieux Pantin" and those of the new Alsatian colony, known as the "Quatre Chemins." The building is a large one, the principal front, shewn in the view, being about 150 ft. long. The style adopted is that of the Renaissance under Henri II. Remarkable care has been bestowed by the architect on the treatment and execution of the ornamental detail.

The three entrances of the principal front lead to a vestibule decorated with an order of columns and pilasters, leading to the main staircase lighted by a large stained-glass window, executed in the style of the close of the sixteenth century, after a cartoon by M. Guélorget; a composition symbolising the industry and commerce of Pantin.

The Salle de Justice opens from the entrance vestibule; the other public rooms are arranged on various stories as convenient. The Salle des Fêtes is on the first floor, with the Salle des Mariages on the one hand of the same floor, and the Council-room on the other. This arrangement, unavoidable, has a little cramped the Salle des Fêtes. This latter contains a fine chimney-piece in white marble, unfortunately disfigured by a very bad bust representing "La République." The principal doorway to the Salle has a pediment decorated with the arms of the ancient Dukes of Pantin, which date from 1204.

The illustration is engraved, from a photograph, by Mr. J. D. Cooper.

* *Builder*, January 2nd, 1886.
† *Builder*, October 30th, 1886.

"THE ENCHANTED CHAIR": SCULPTURE.

ALL who visited the last Academy exhibition will remember, or ought to remember, this fine life-size group in terra cotta, by Mr. A. Gilbert, which occupied a prominent position in the octagon hall, and is one of the most imaginative and original works by an English sculptor which we have seen there of late years. It is not merely a finely-modelled study; there is a poetic suggestiveness about it; the dragon wings coiled up under the seat, the Cupid among them, the eagle with outstretched wings above, suggest we know not what of glamour. There is a whole "Arabian Night's" tale in the group; one can fancy all kinds of legends for it. The feeling of deep sleep is finely conveyed in the figure. We have much pleasure in giving an illustration of a work which, both in technique and in imaginative power, gives us reason to look with much interest for its author's future productions.

It may be right to add that Mr. Gilbert speaks of the work as "unfinished," and we presume the minor details are not worked out entirely according to the ultimately intended form.

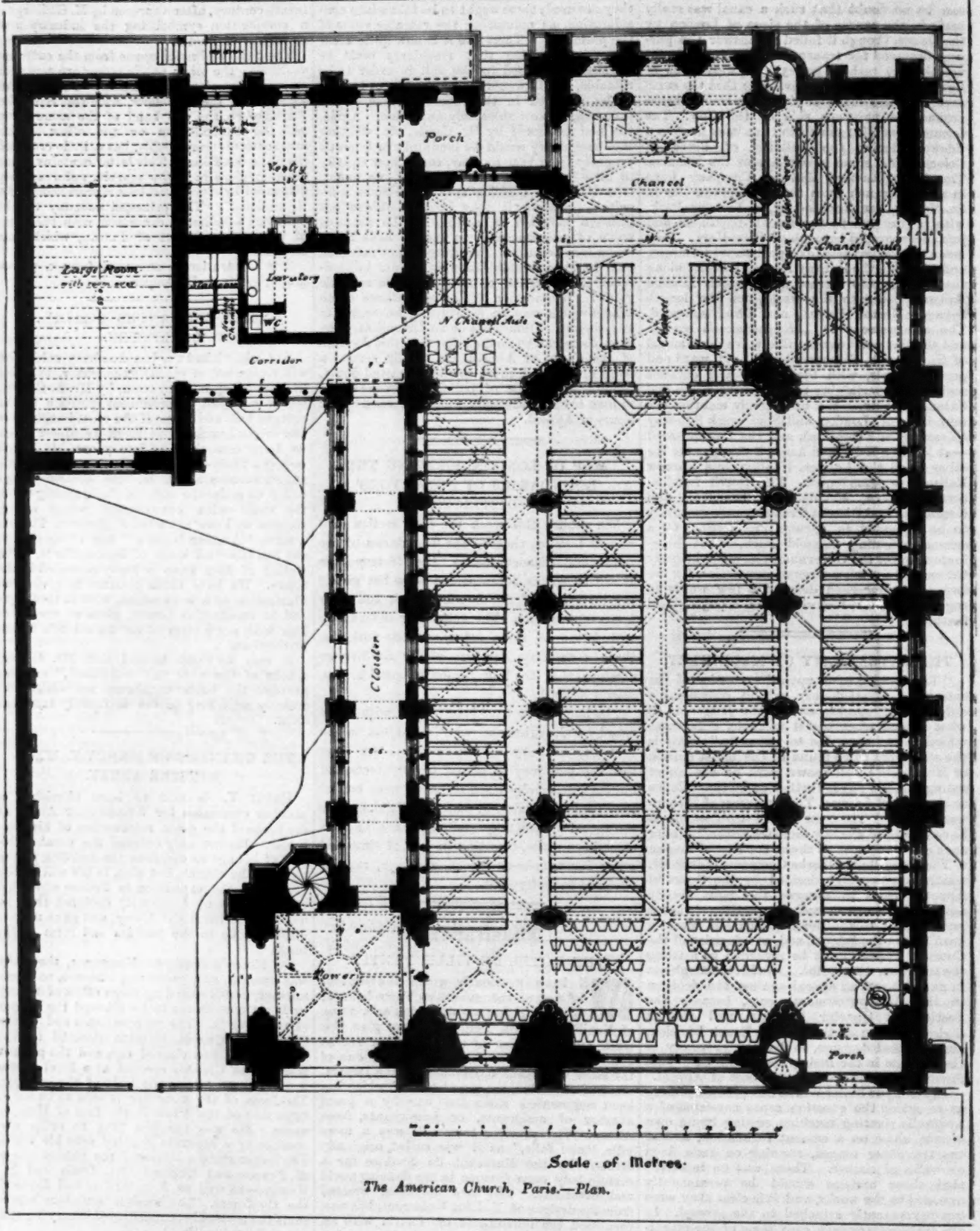
THE CHANTRY OF HENRY V., WESTMINSTER ABBEY.

HENRY V. is said to have cherished a peculiar veneration for Westminster Abbey as the scene of the great reformation of his character. He not only ordered the great architect of his age to continue the building of the nave of the church, but also, in his will (made just before the expedition to France which led to the battle of Agincourt) declared that he would be buried in the Abbey, and gave minute directions as to the position and form of his tomb.

On Henry's death, at Vincennes, the body was brought, with great magnificence, to Westminster, notwithstanding large offers of money by Paris and Rouen to be allowed the honour of retaining it. The extreme east end of the Confessor's Chapel, hitherto devoted to the sacred relics, was cleared out, and the present magnificent Chantry erected at a level where it could be seen from the body of the building. The form of the structure is said to be based upon that of the letter H, the first of Henry's name. He was the first king to order the erection of a separate chantry over his tomb. The larger statues represent the patron saints of France and England,—St. Denis and St. George,—as well as King Arthur and Edward the Confessor. The smaller sculpture represents the personal peculiarities of Henry V., and scenes from his life.

CHURCH OF THE HOLY INNOCENTS, HAMMERSMITH.

THIS church, designed by Mr. Jas. Brooks, is a fine example of simple and solid work, producing its effect by massive construction and picturesque outline and grouping, without any adventitious aid from decorative detail. The plan is designed on the system, which has been tried from time to time by modern church architects, of making the side aisles narrow alleys for passage merely. This treatment is unfortunately rather difficult to carry out architecturally without going to the opposite extreme and making the aisles too narrow, as is certainly the case with Street's Church of All Saints at Clifton, where this plan was tried



The American Church, Paris.—Plan.

and where the passage past the piers is too narrow for two people to walk abreast conveniently. We hope this has been avoided in the design shown here. The exterior architectural treatment is very solid and effective.

THE AMERICAN CHURCH, PARIS.

WE give some of the geometrical drawings for this building, which is, we understand, much admired in Paris. It is situated in the Avenue de l'Alma, Champs Élysées.

Some of the small scale drawings were prepared during the lifetime of the late G. E. Street, R.A., the other drawings and details have all been made by his son, Arthur Edmund Street, M.A., under whose supervision the work has been carried out. Mr. Arthur Street also designed the vestry buildings and all the furniture and fittings of the church, the bishop's throne, stalls, altars, &c.

The walls are built in dressed ashlaring inside, and outside of Conflans stone; the arcade, columns, and other portions of the building are executed in Ancy-le-Franc stone.

The woodwork is all of oak; the roofs are covered with green Eureka slates. The floors are all of marble, in patterns executed by Messrs. Farmer & Brindley, who also carried out the stone carving.

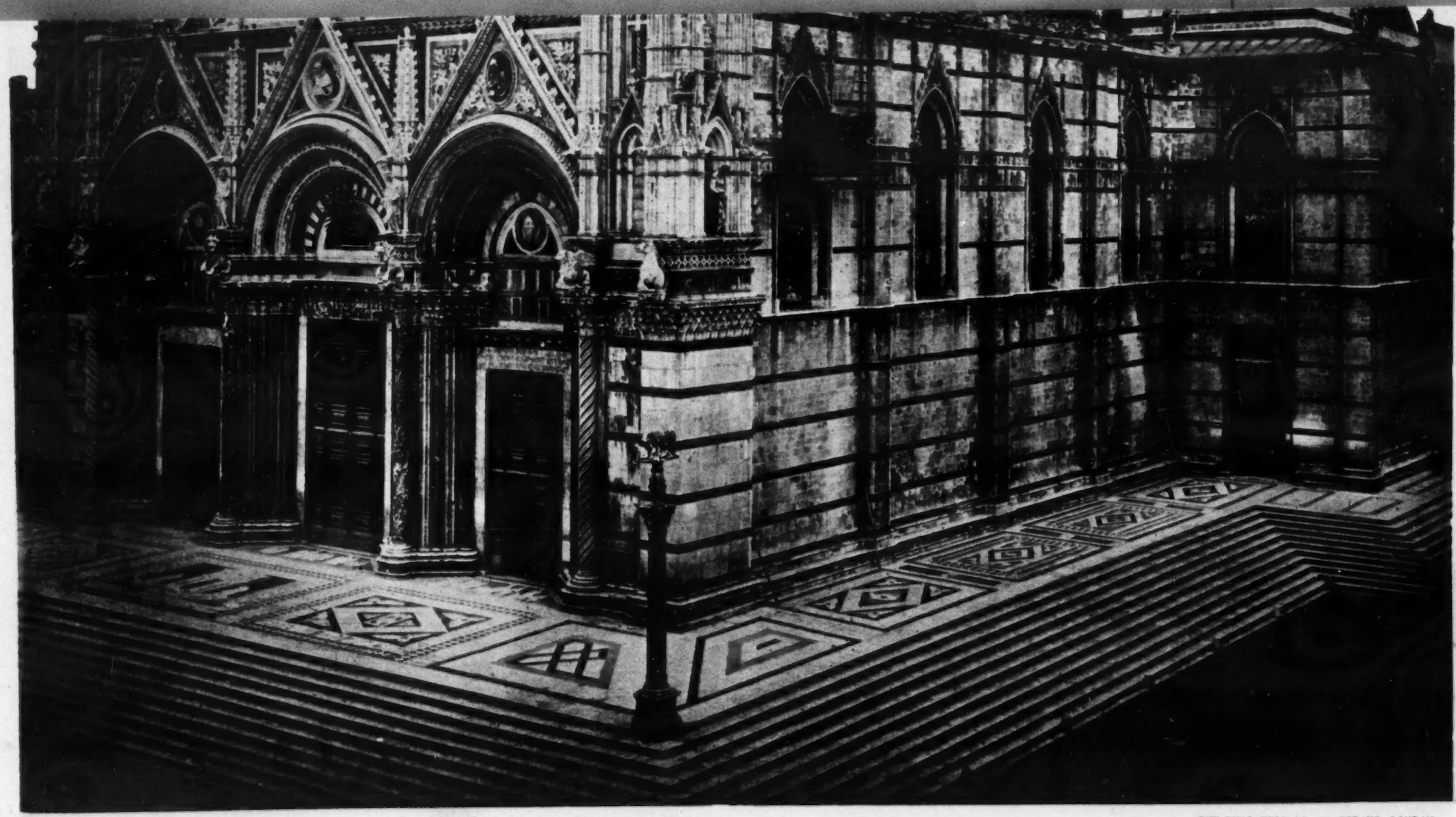
The heating was carried out by Messrs. Jeakes & Co., and the wrought-iron screens and hinges and tower gates by Mr. Barford. Messrs. Potter executed the altar-rails and candle standards in the church as well as in the mortuary chapel below the vestry buildings, and likewise the railings outside. Mr. Robinson, Bloomsbury, made the oak sedilia; and Mr. Gibbons the litany-desk. Mr. Earp executed the Bishop's throne, the altar, retable, and font.

Some of the stained glass which has been fixed has been carried out by Messrs. Bell & Beckham, and the scheme and a great part of the design was the conception of the late Mr. Jas. Bell, under Mr. A. E. Street's direction.

Mr. Lovatt, of Wolverhampton, was the contractor, and the cost of the buildings may be taken at about 50,000*l.* for the church, and 14,000*l.* for the vestry buildings, in addition to which there have been many special gifts. Mr. Wallis has been the clerk of works.

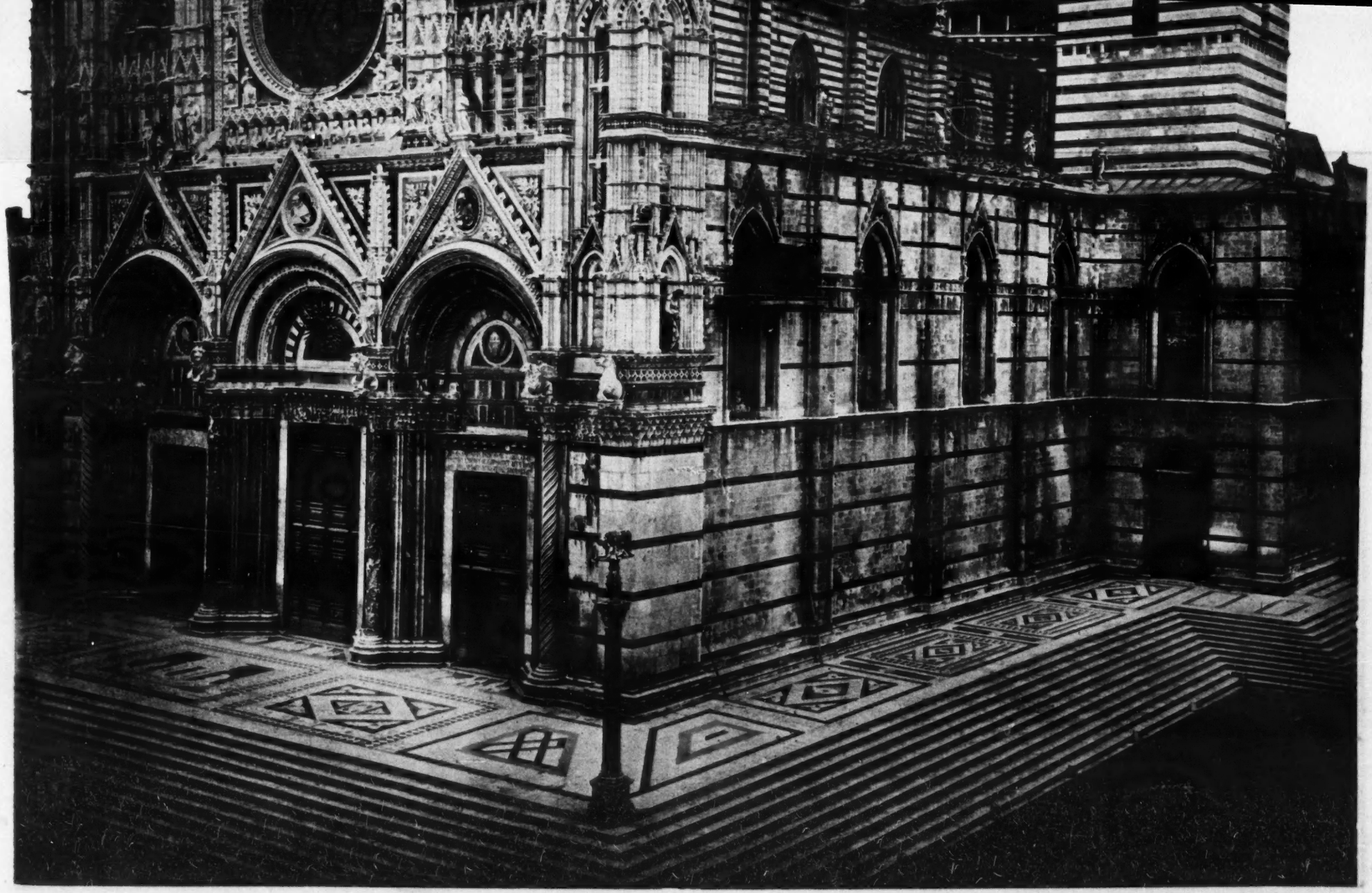
Obituary.—Mr. John Warrington Wood, the sculptor, died on Sunday last in Warrington, his native town, after a short illness.

THE BUILDER, JANUARY 1, 1887.



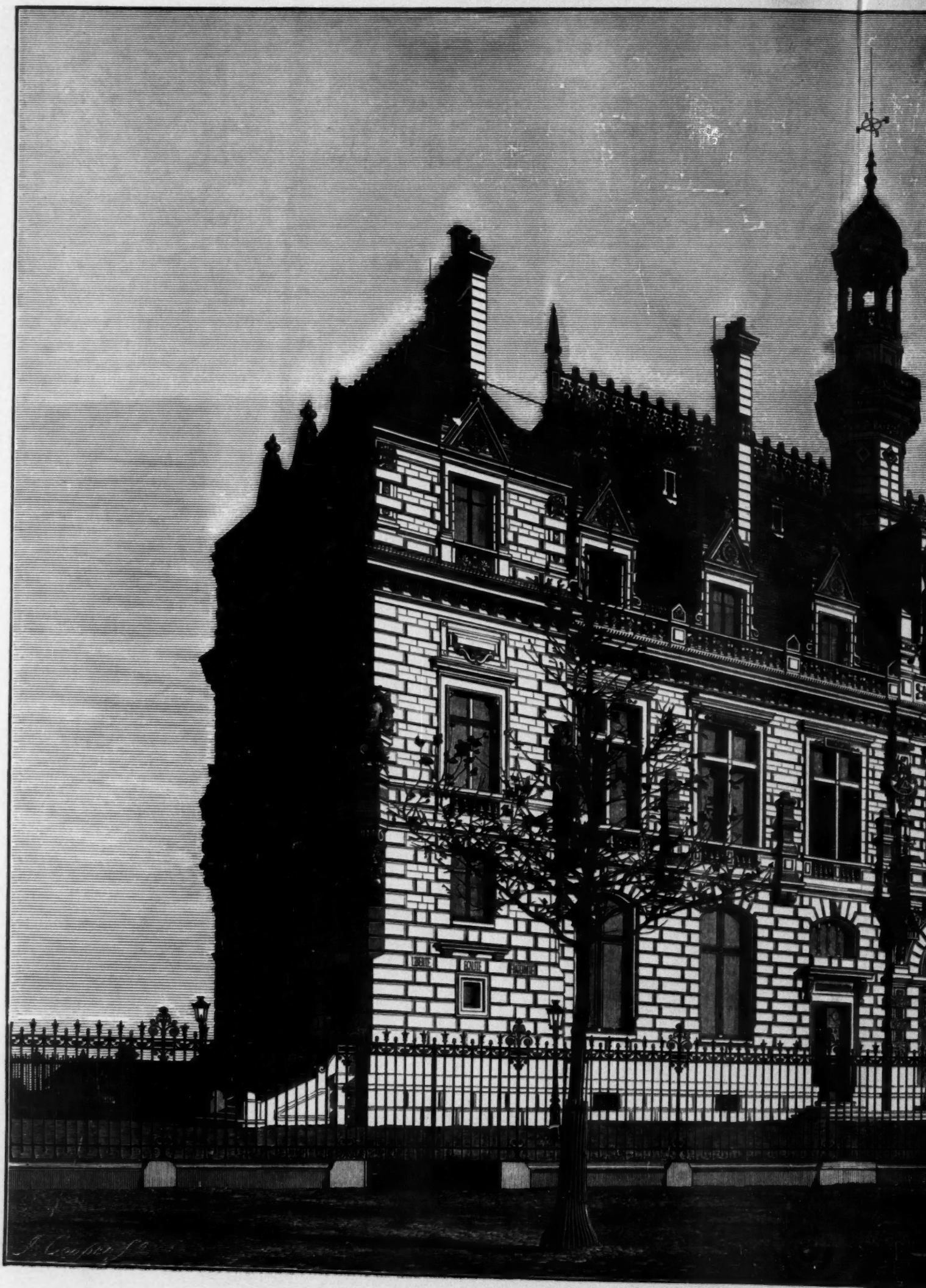
THE PHOTOTYPE CO., 200, STRAND, LONDON.

THE CATHEDRAL, SIENA.

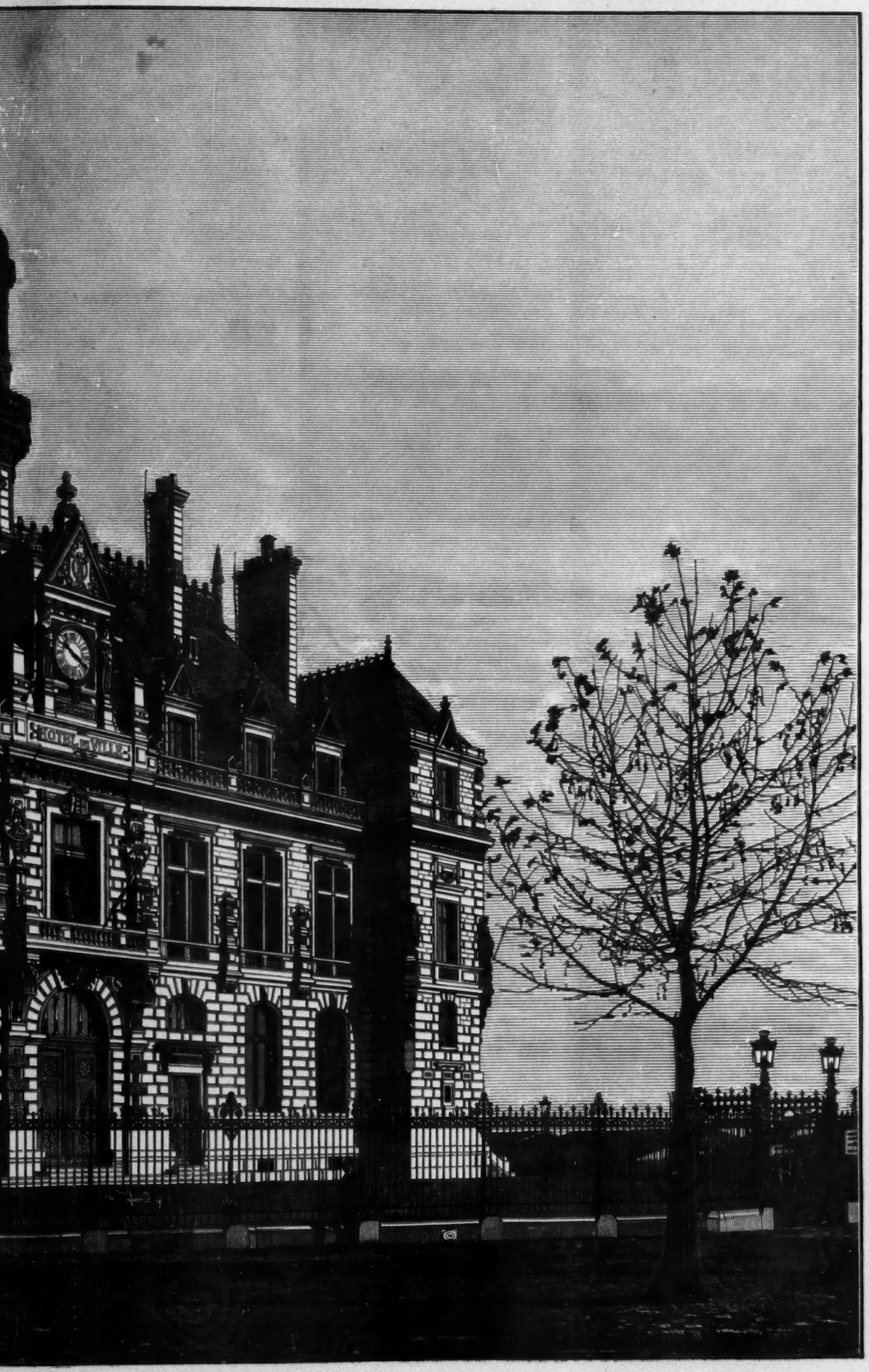


THE PHOTOTYPE CO., 200, STRAND, LONDON.

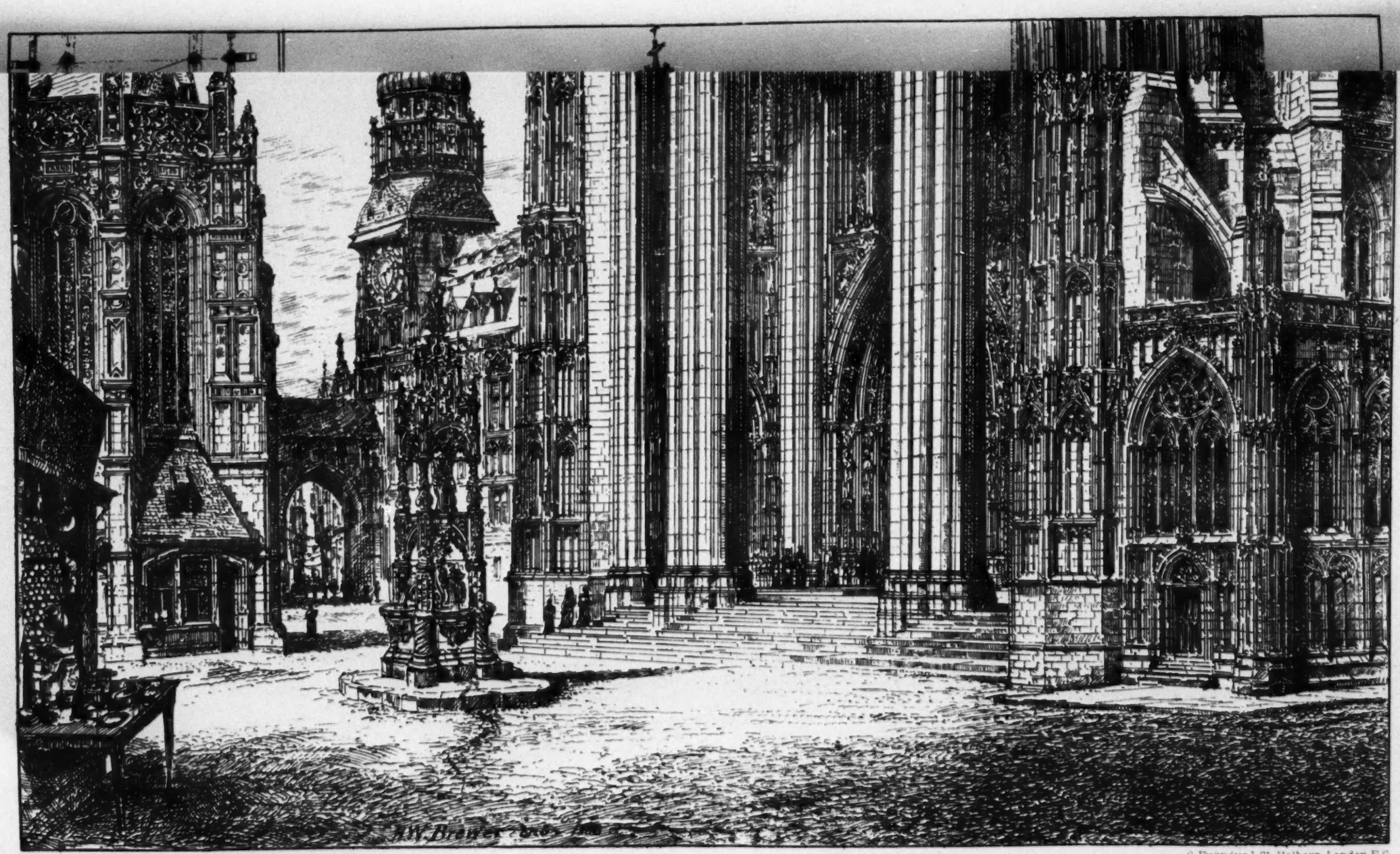
THE CATHEDRAL, SIENA.



HÔTEL DE VILLE, PANTIN, PARIS.—M. L



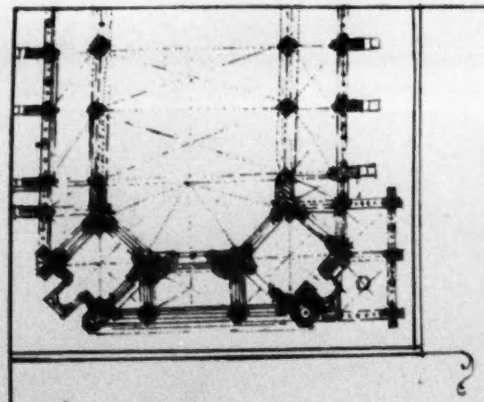
-M. LÉON GUÉLORGET, ARCHITECT.

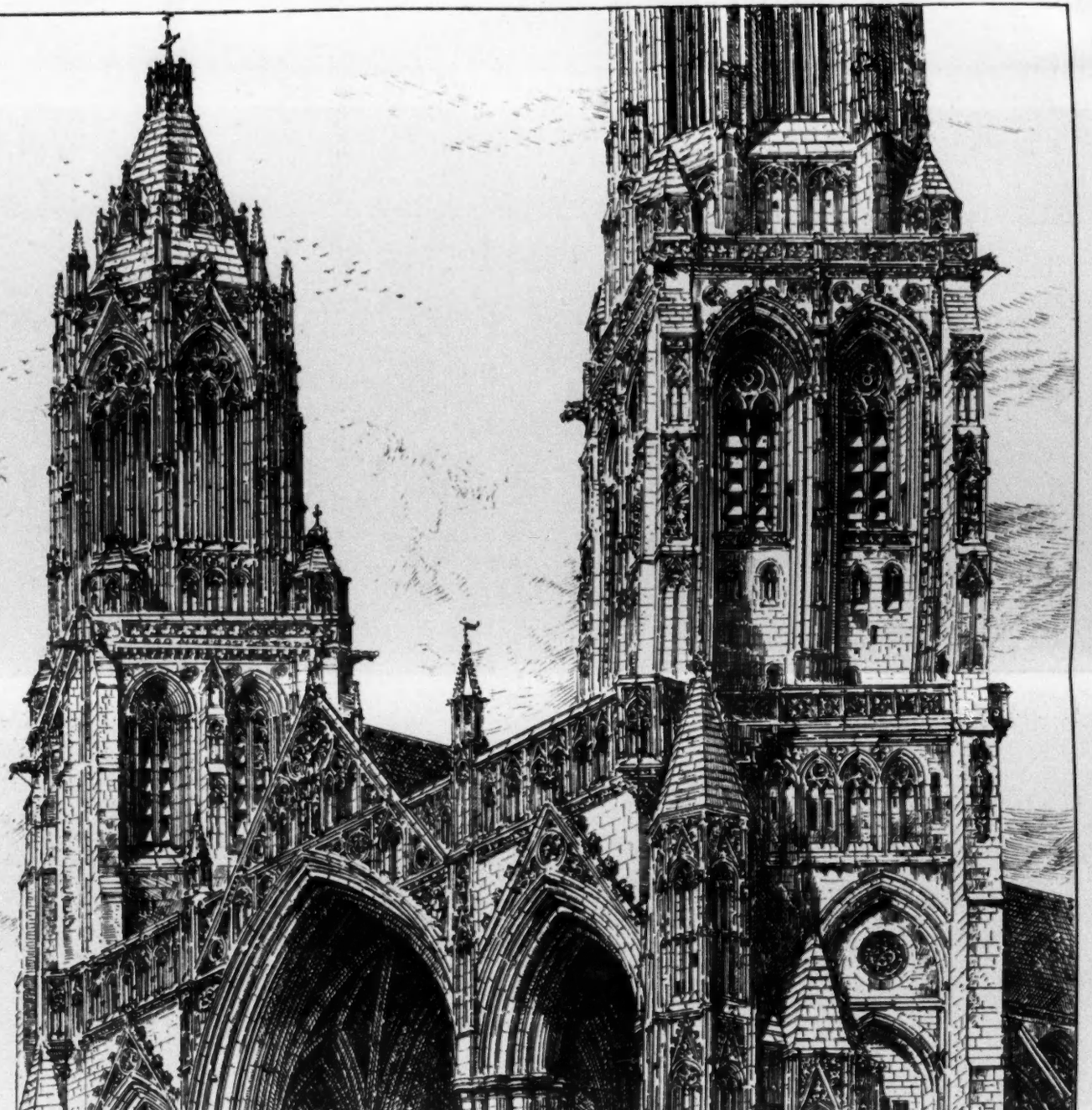


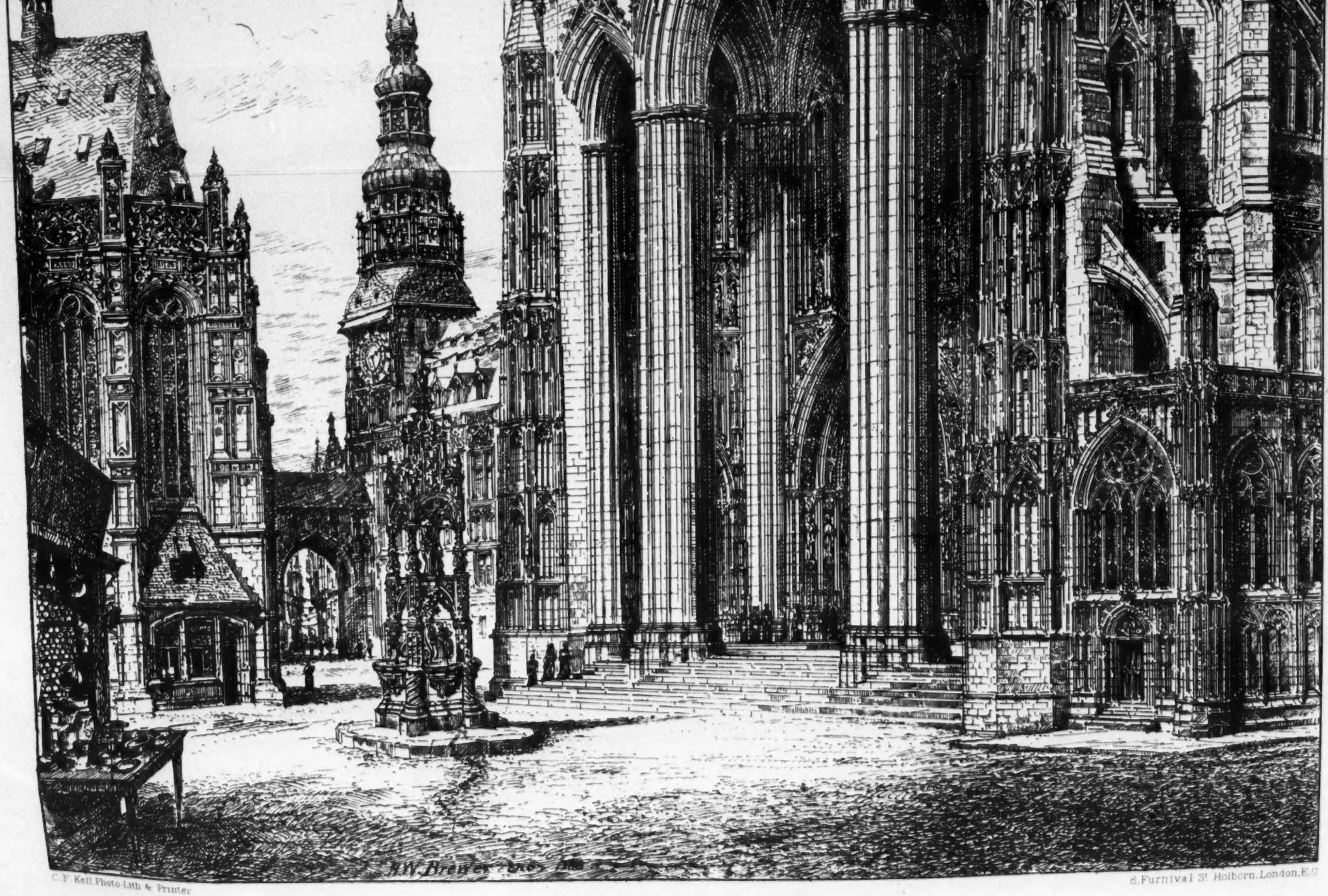
C.F. Kell Photo-Lith & Printer

8, Furnival St. Holborn, London, E.C

"MEASURE AND VALUE."







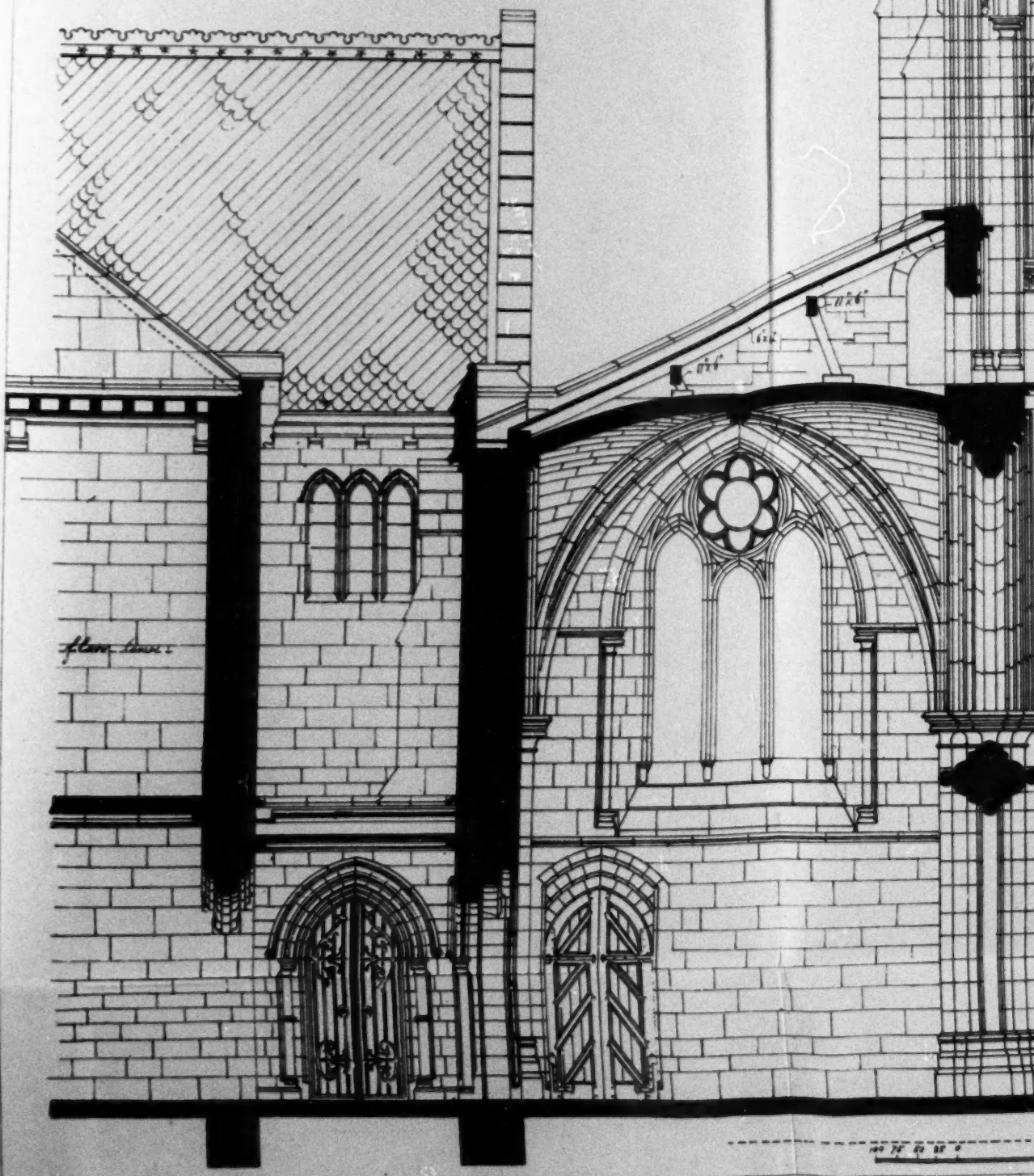
C. F. Kell Photo-Lith & Printer

8, Furnival St. Holborn, London, E.C.

"MEASURE AND VALUE."

"THE ENCHANTED CHAIR."—Mr. Alfred Gilbert, Sculptor.

Detail Section across Chancel.



AMERICAN CHURCH. PARIS

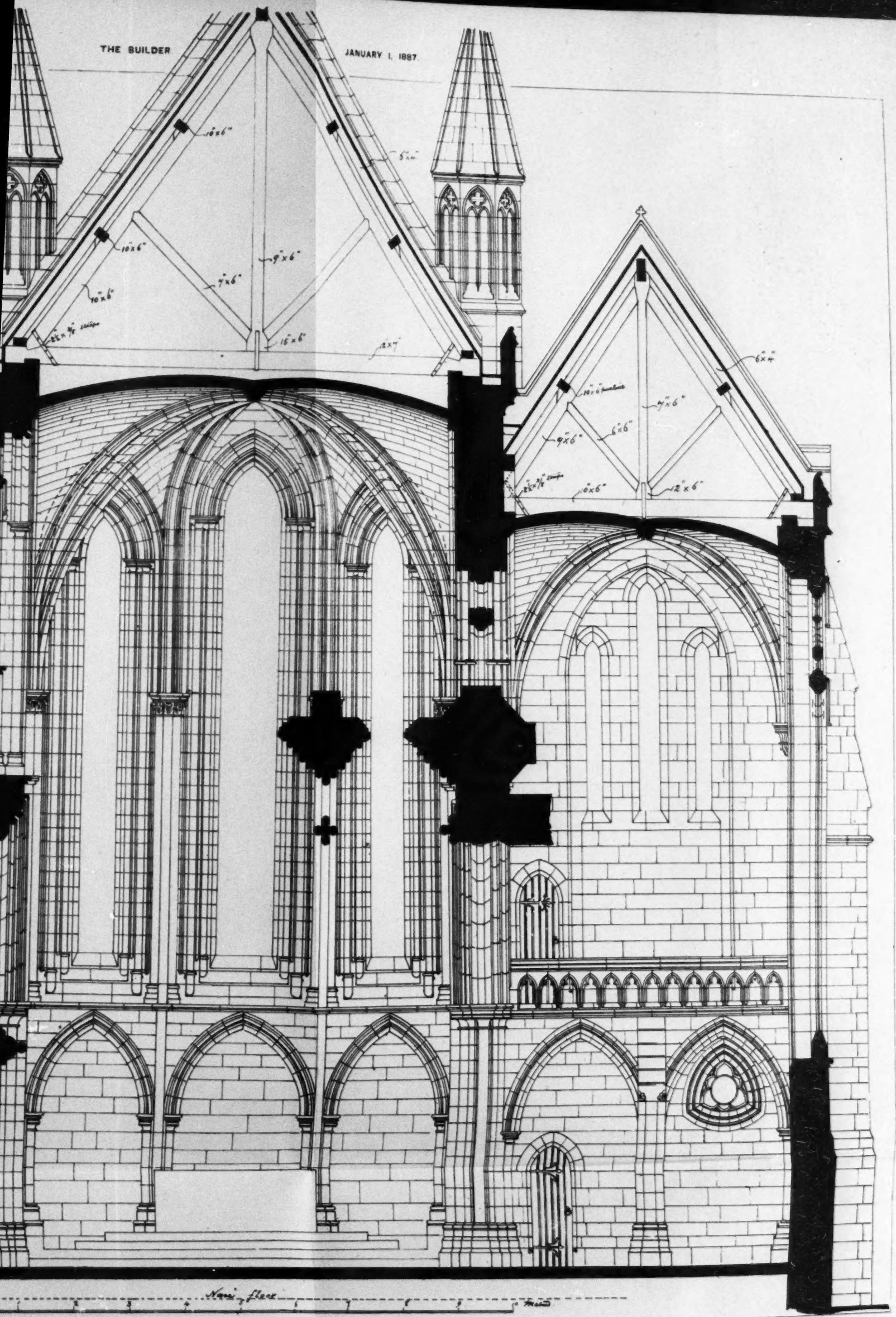
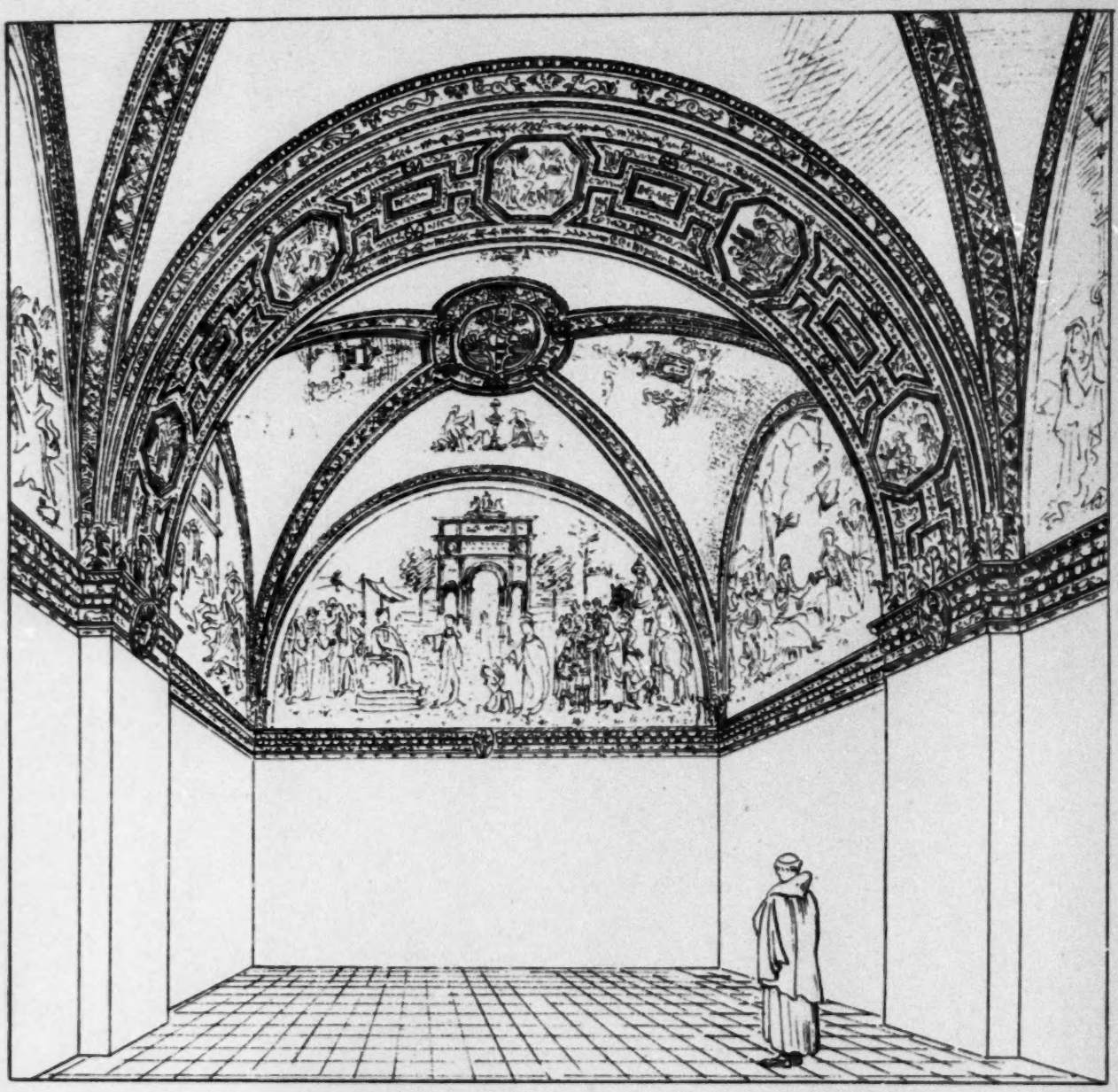
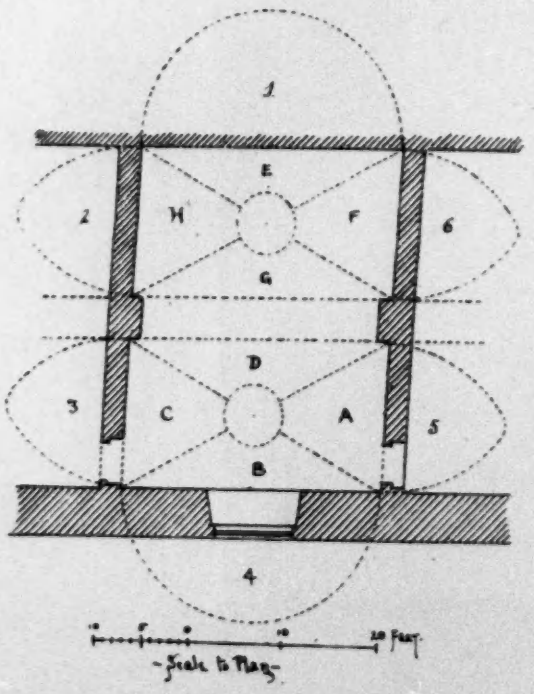


PHOTO-LITHO BEMROSE & SONS, 23, OLD MARTINS LANE, CANNON ST. LONDON, E.C.

RIS.—THE LATE G. E. STREET AND MR. ARTHUR E. STREET, ARCHITECTS.



SKETCH-PERSPECTIVE



Medallion from soffit of Great Arch.

Subjects of Ceiling-Decoration

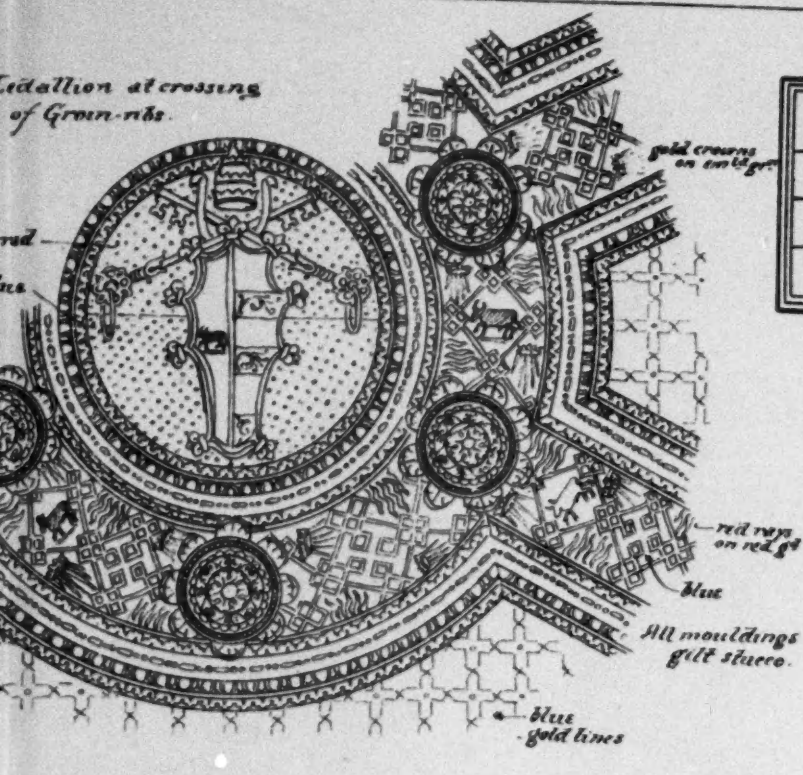
A. Osiris teaches Egyptians agriculture.
B. He teaches them Viticulture.
C. He gathers the harvest.
D. His marriage with Isis.
E. His murder by Typhon.
F. Isis finds his limbs.
G. Appearance of Apis.
H. Worship of Apis.

Subjects of Lunettes.

1. S. Catharine before Emperor Maximian.
2. Escape of S. Barbara.
3. S. Julienne's refusal to obey her father.
4. Martyrdom of S. Sebastian.
5. Visitation of the B.V.M.
6. Visitation of S. Paul the Hermit by S. Antony.

Medall
of Gr
red
Blue
Scale

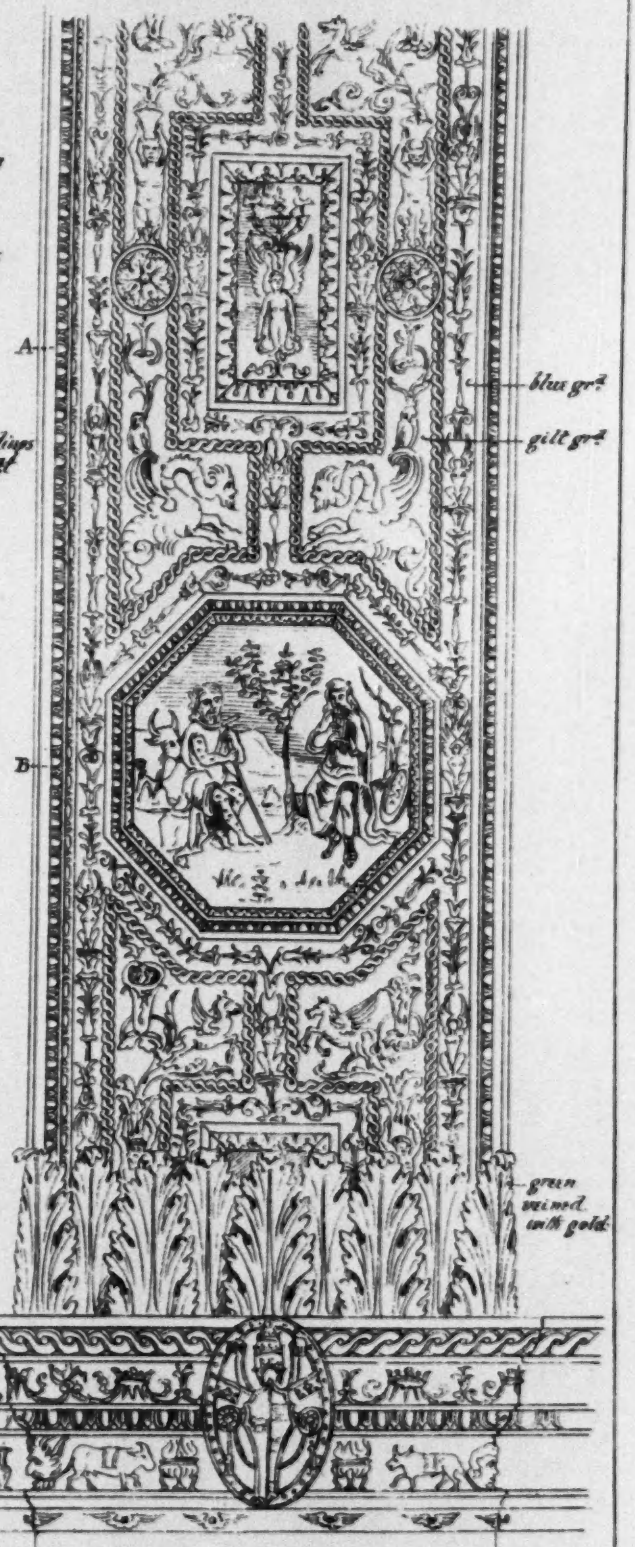
THE "APPARTAMENTI BORGIA".
VATICAN · ROME.
SOME DETAILS OF THE DECORATION
BY BERNARDINO DI BETTO – PINTURICCHIO.



A Group from Fresco N°1.

AT A

AT B



Part of Arch-soffit.
(developed)

Scale of feet 12 9 6 3 0 1 2 3 4 5
Scale to Details

F. W. WOODHOUSE.
MENS: ET DELT.
1885.

PHOTO-LITHO SPRAGUE & Co 28 MARTINS LANE CANNON ST. LONDON E.C.

Stanza III
Plan of Ce

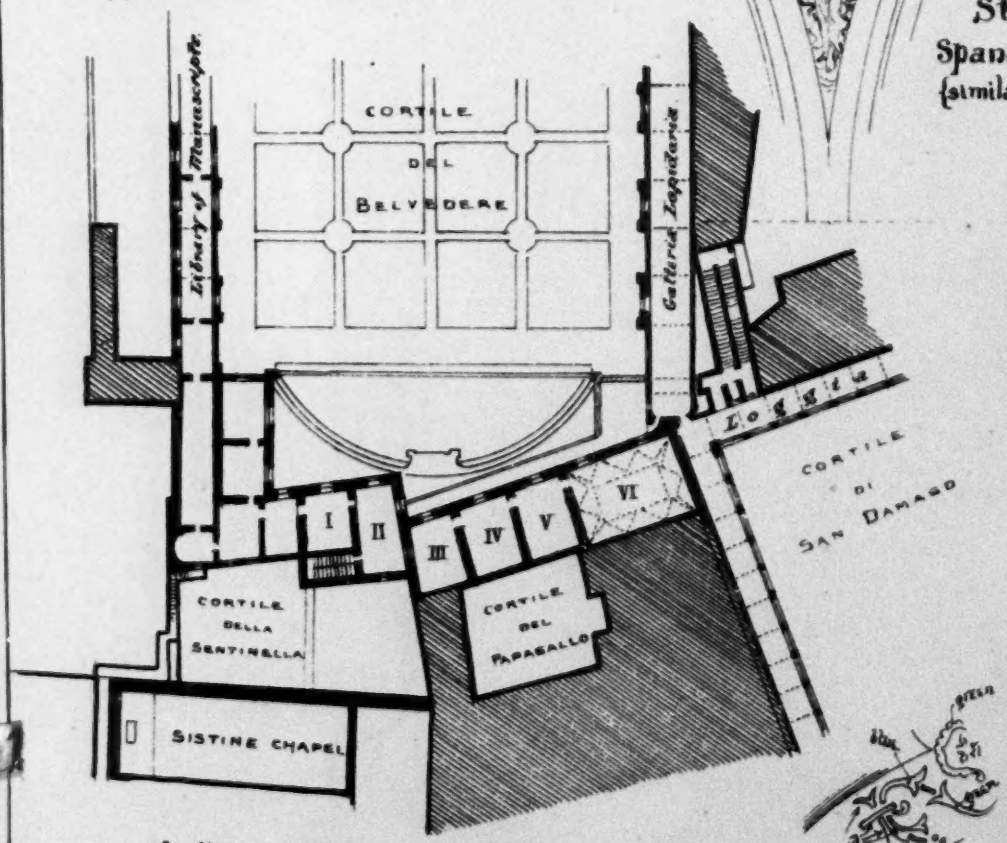
Blue. Gilt stucco Ornt.
Gilded stucco
reddish brown painted
Gilded stucco
reddish brown painted

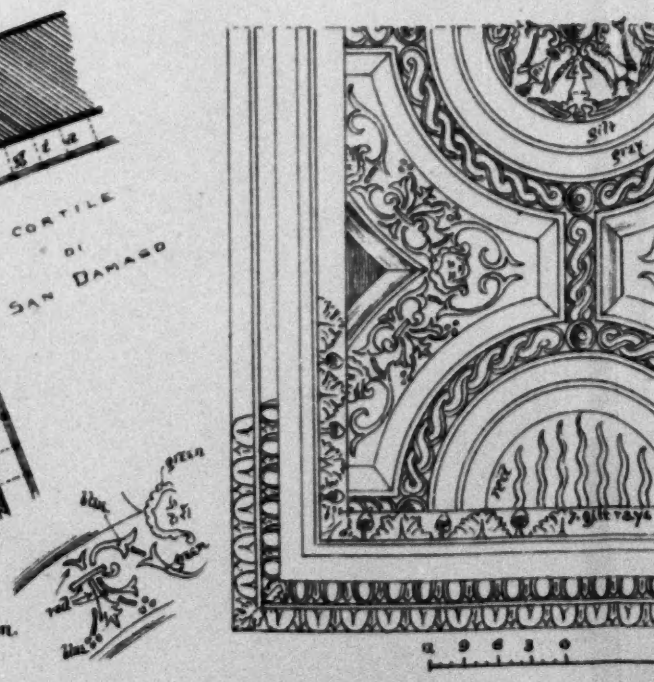
Gilt stucco Guilloche
Blue. Gilt stucco Ornt.
Grave
Reddish brown
Gilt stucco
Blue. flat gilt ornament.
Blue
Reddish brown painted
Scarlet
Green
"Geometry"

Stanza·III· Pendentive.

Stanza III.
Spandrel & Part of Ceiling.
{similar spandrel in N°5}

SKETCH PLAN·
showing the position of the
"Appartamenti Borgia"
Subject of Fourth "Rhetoric"





F.W.WOODHOUSE. MENS: ET DEL?

THE "APPARTAMENTI BORGIA".
VATICAN · ROME ·
SOME DETAILS OF THE DECORATION
BY BERNARDINO DI BETTO — PINTURICCHIO.

anza III.
au of Ceiling.

gilt

gold on blue
red
gilt
gray
blue
gold
blue

light blue & red alternately

scarlet
dark blue
gray gr.d
blue gr.d
Crowns - gold on green
Bulls - red on gold

gilt

Section

12 6 0 1 2 3 feet

Stanza V. Part of Ceiling.

Stanza V. Soffit of Arch.

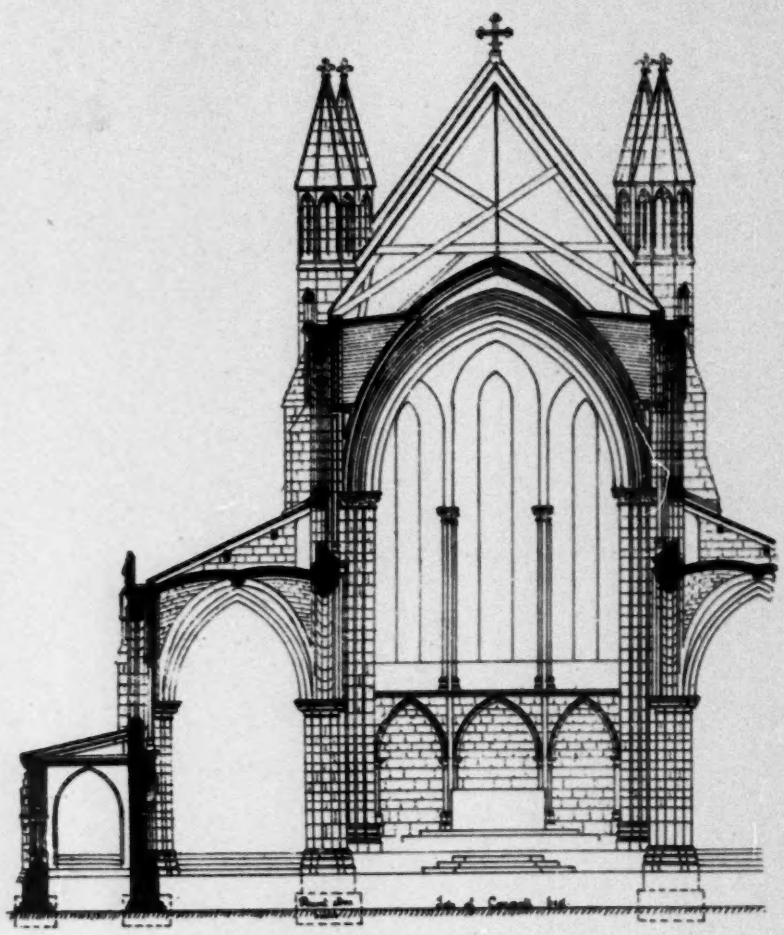
Stanza I.
part of Ceiling.

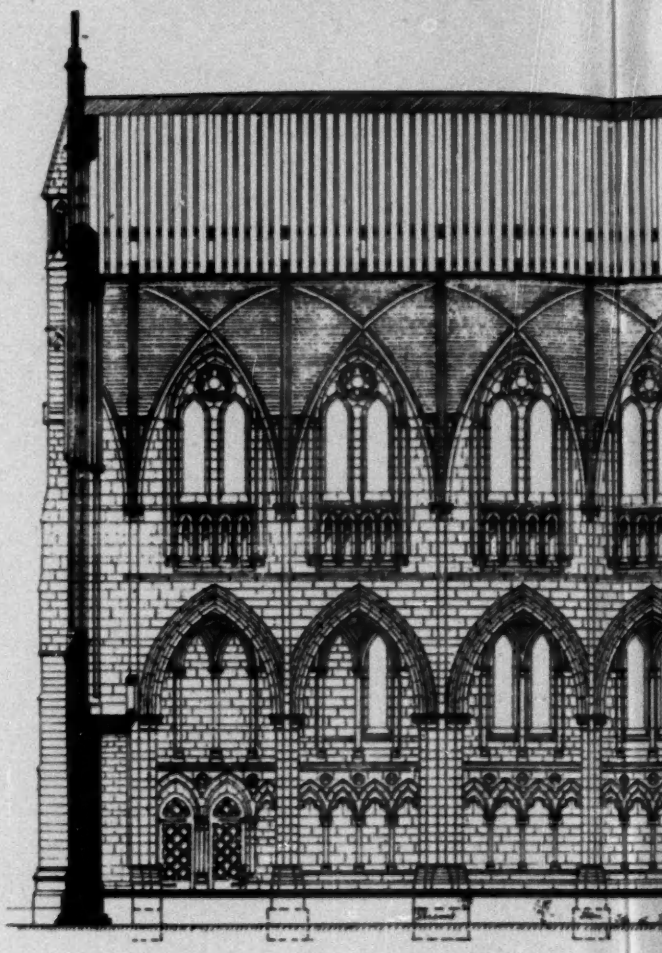
gilt and blue ground
gilt
gray
gray
gilt
green (gold) quilloche
gilt ground
centre "octagon" has arms in a circle with crowns at angles —
gilt crown on dark blue ground

fut.

Part of Fresco N.o 6 · Stanza IV.

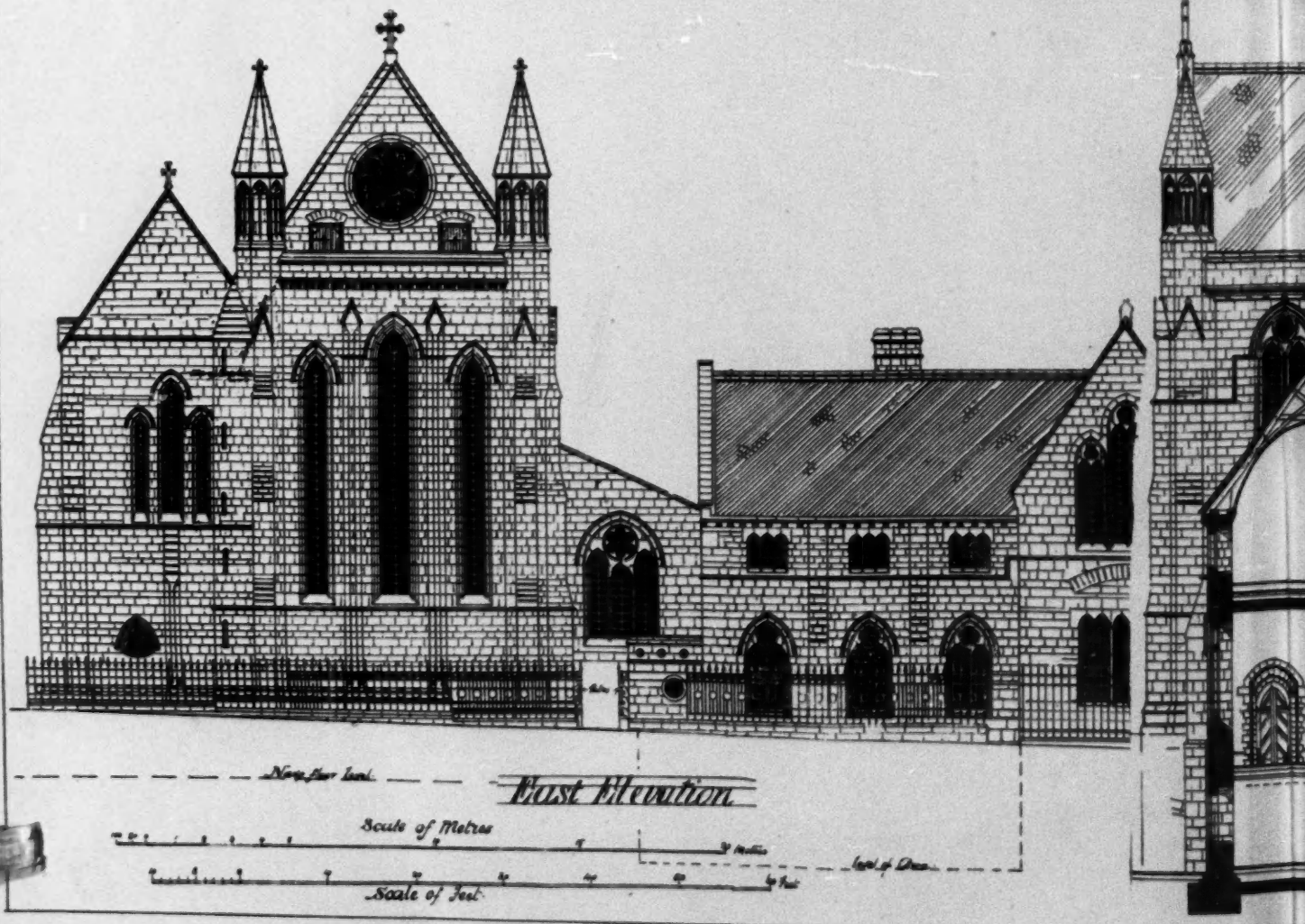
PHOTO LITHO. ARRAGUE & Co. 28 MARTINS LANE CANNON ST. LONDON E.C.



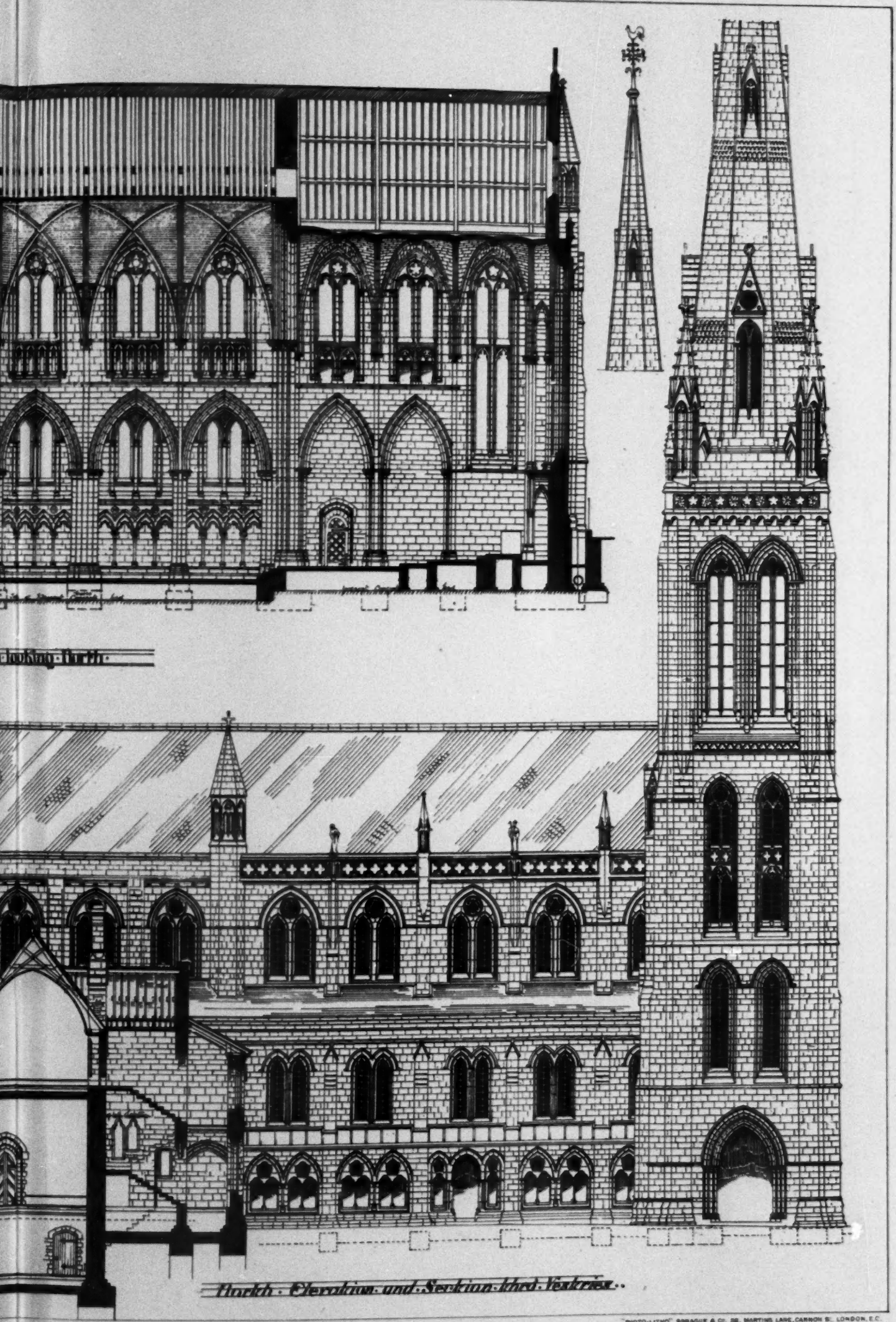


Section looking West.

Longitudinal Section looki



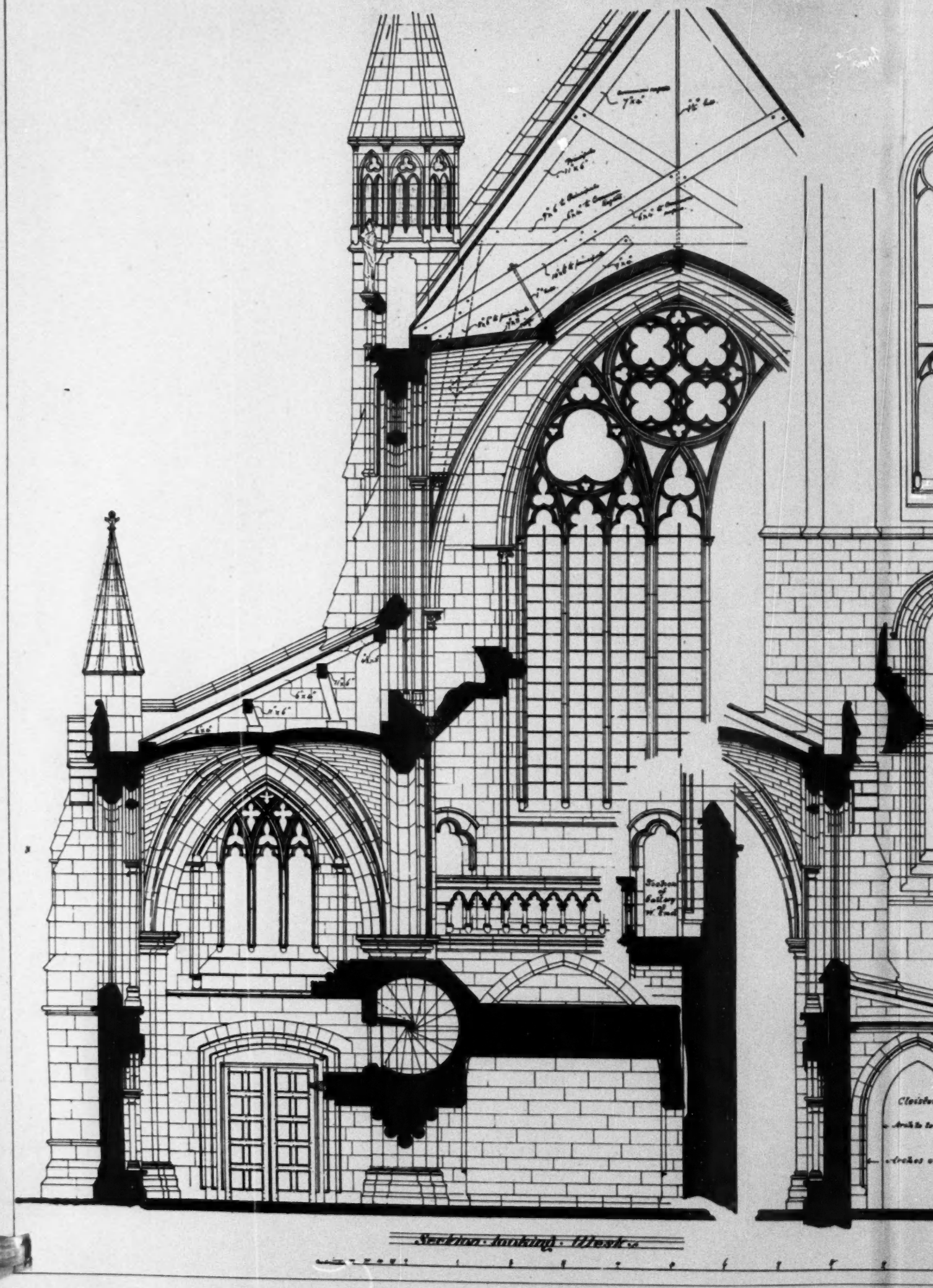
AMERICAN CHURCH, PARIS.—THE LATE G. E. ST



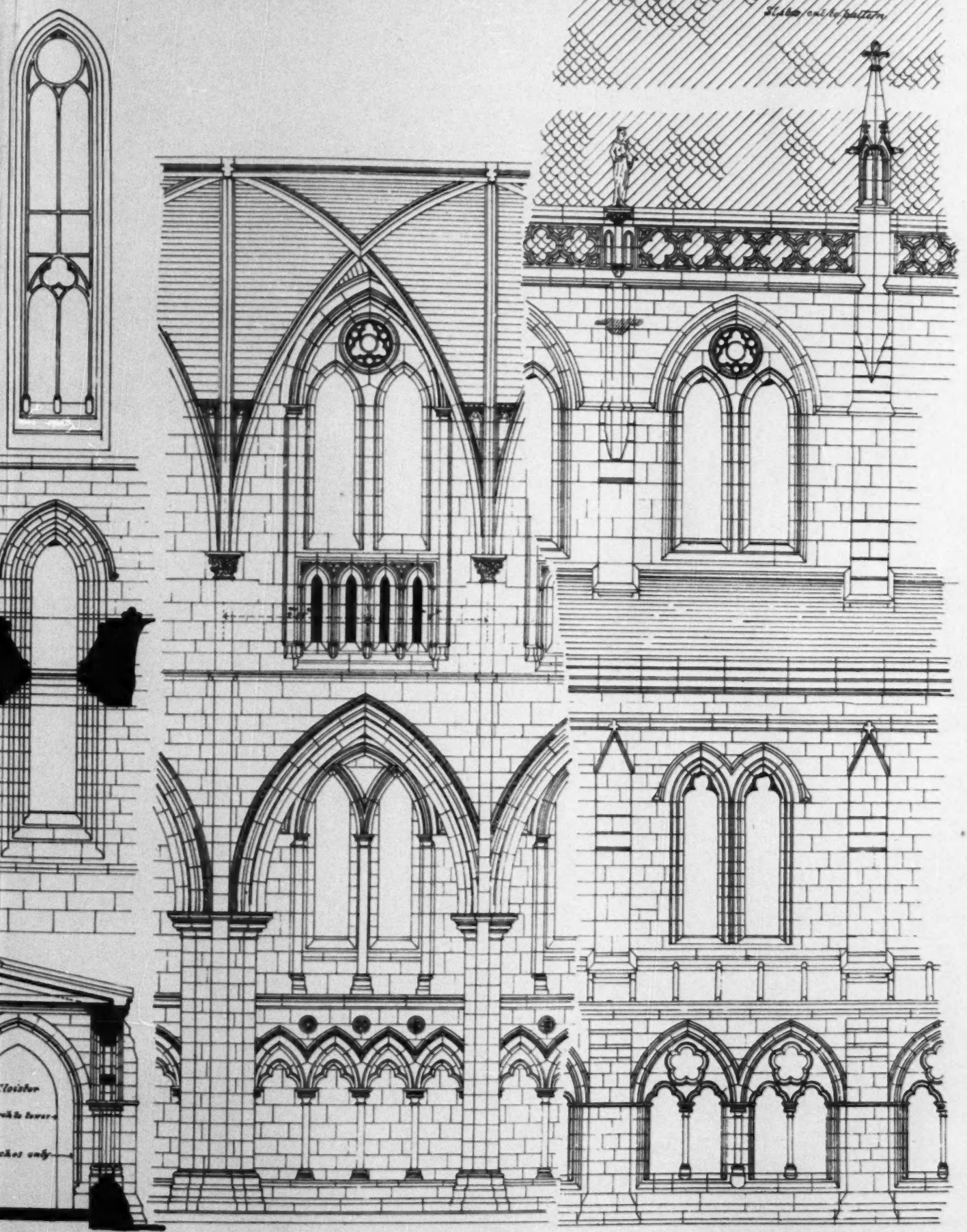
North Elevation and Section shewing Lantern.

"PHOTO-LITHO" SPRAGUE & Co., 98, MARTINS LANE, CANNON ST., LONDON, E.C.

. STREET AND MR. ARTHUR E. STREET, ARCHITECTS.



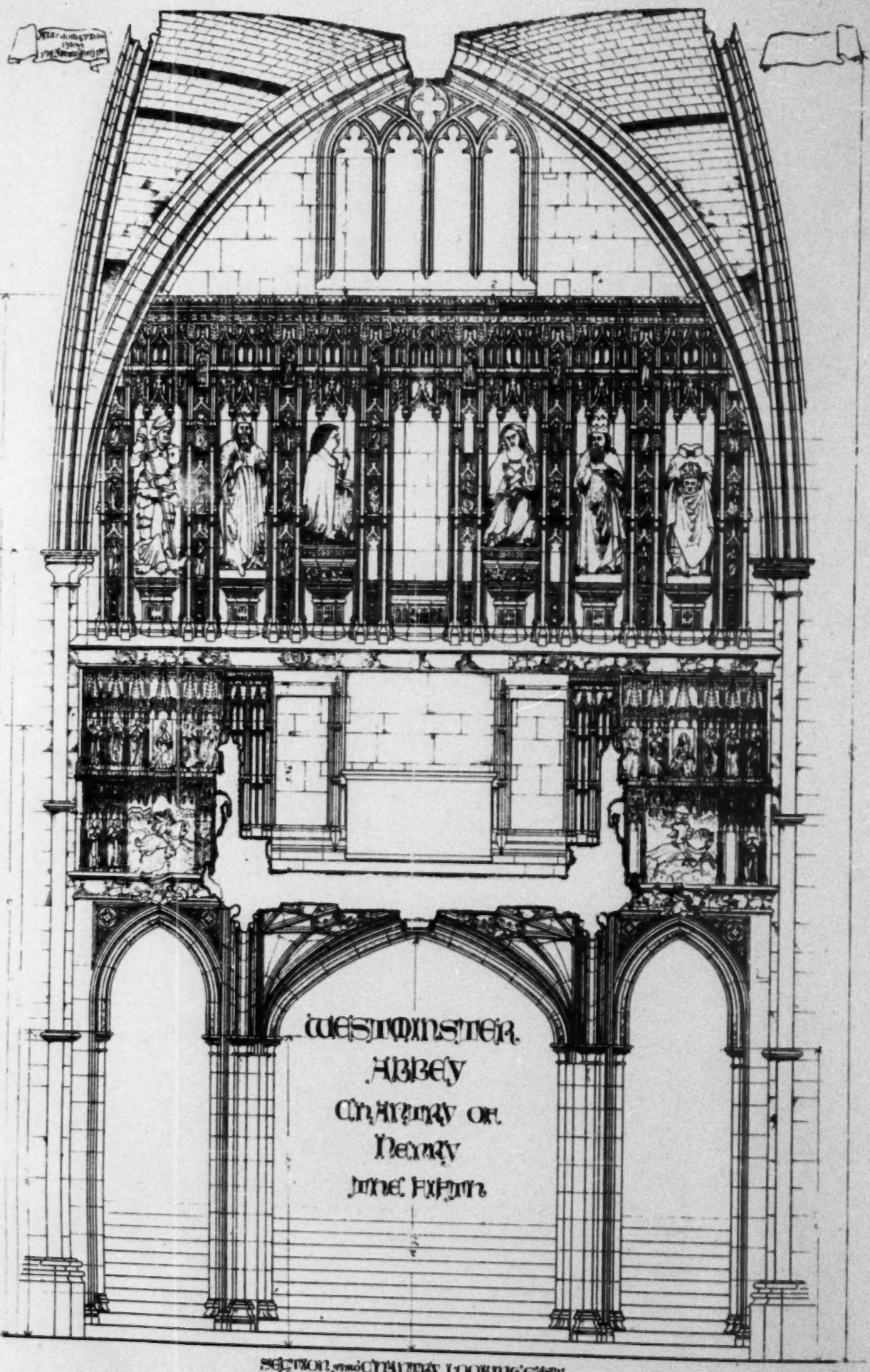
AMERICAN CHURCH, PARIS.—THE LATE G. E. STRE



Section of one bay looking North.. *Elevation of one bay of North Side..*

"PHOTO-LITHO" SPRAGUE & CO. 62, MARTINS LANE, CANNON ST. LONDON, E.C.

STREET AND MR. ARTHUR E. STREET, ARCHITECTS.

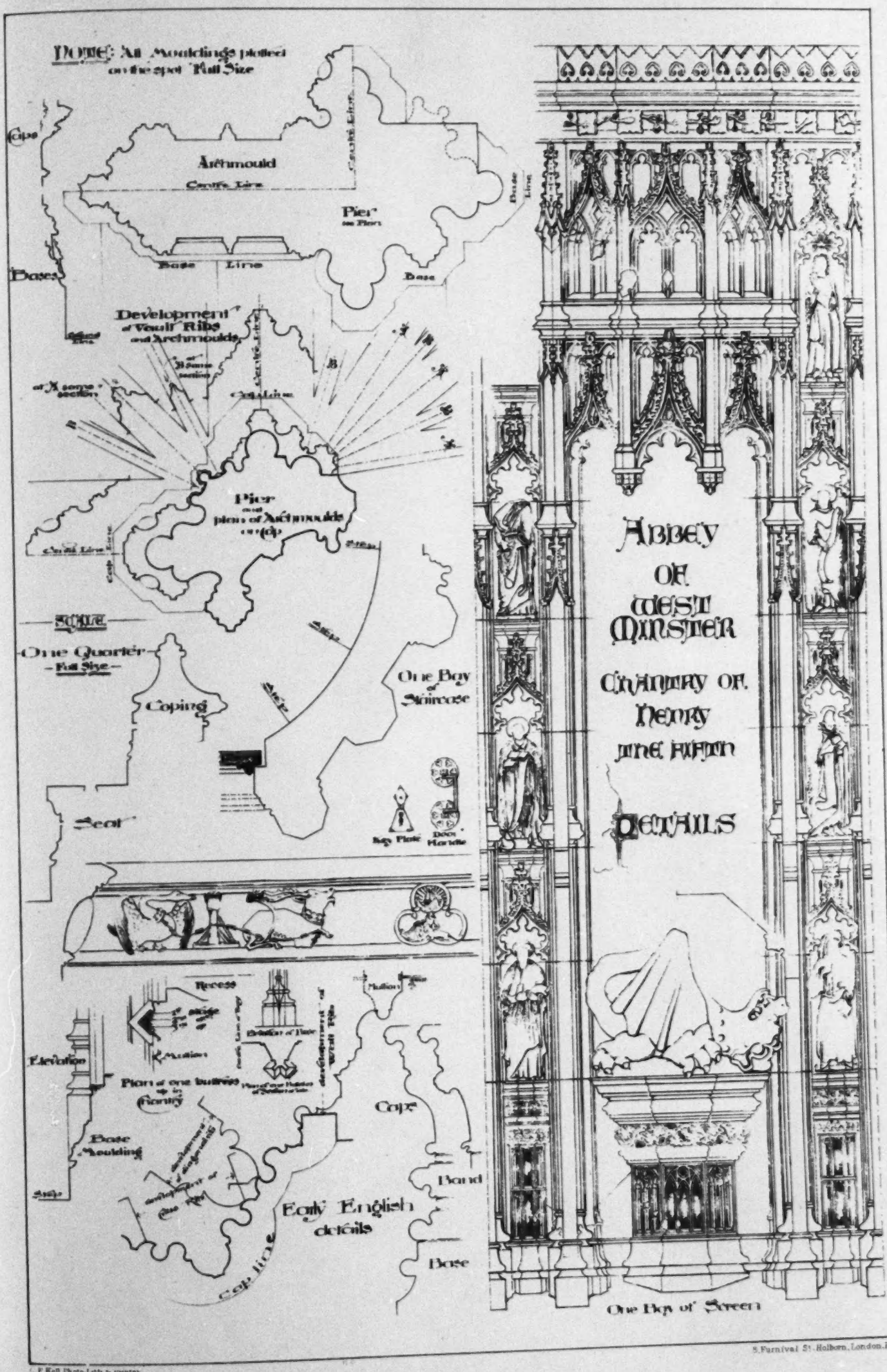


C. F. Kell Photo Litho & printer

S. Furnival St. Holborn, London, E.C.

DRAWN BY MR. G. T. McCOMBIE.

AWARDED THE R.A SILVER MEDAL 1886.

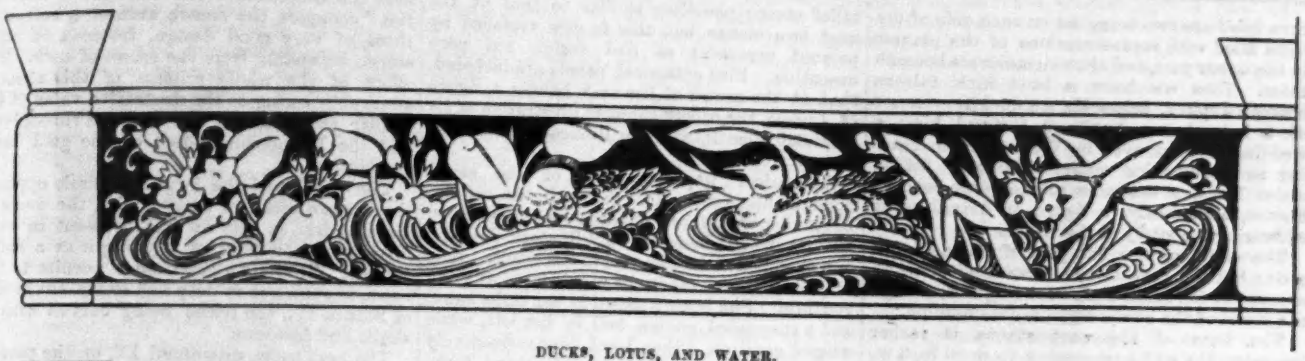


S. Furnival St. Holborn, London, E.C.

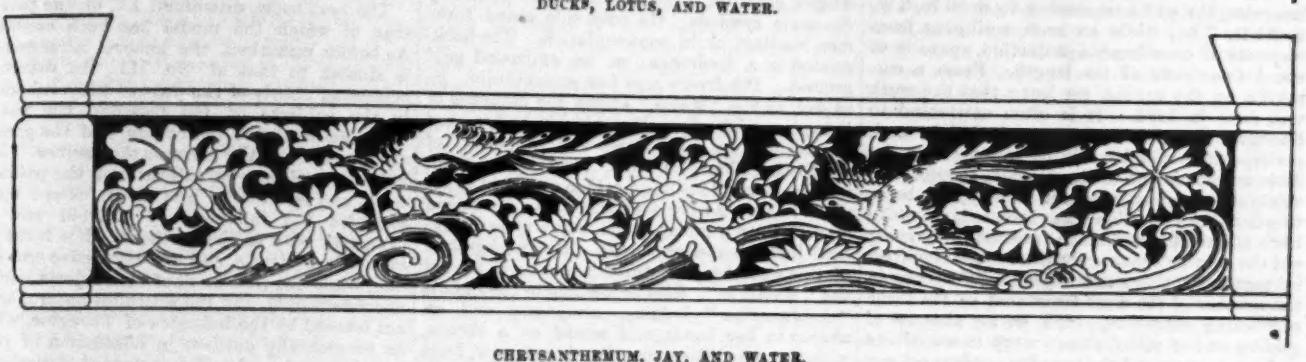
J. F. Kell Photo-Lith & Printer

DRAWN BY MR. G. T. McCOMBIE.

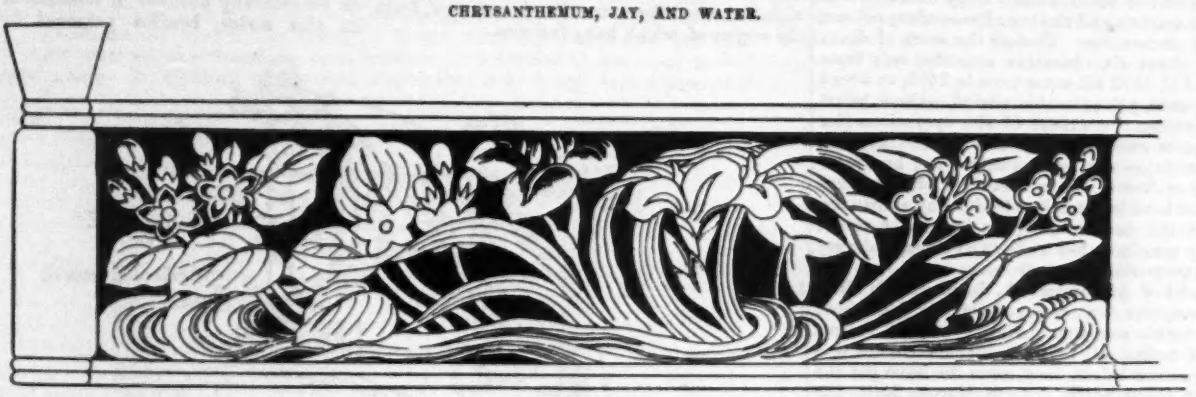
AWARDED THE R. A. SILVER MEDAL, 1886



DUCKS, LOTUS, AND WATER.



CHRYSANTHEMUM, JAY, AND WATER.



IRIS, LILIES, AND WATER.

Carved Pierced and Coloured Wooden Balustrades (Japanese Work).

JAPANESE CARVINGS.

THE illustrations of Japanese carvings are reproductions in black and white of coloured drawings by Mr. Josiah Conder, of Tokio, who recently contributed a paper on "Japanese Architecture" to the Royal Institute of British Architects. They are examples of the ornamentation of partitions and screens, and are treated in the same way as the ram-ma, or ventilating openings common to all Japanese buildings. They are usually carved in camphor wood, the wood being pierced, and frequently displaying a different design on each side. After being coated with a mixture of whiting and size to preserve them from the attacks of insects and decay, they are coloured with as near an approach to a reproduction of the beautiful hues of nature as is compatible with their decorative nature. The same fidelity to nature is found in all Japanese work, so beautifully conventionalised in the many different materials in which their art is displayed, that, as will be seen in these illustrations, it is almost impossible to detect, excepting upon close scrutiny, where nature ends and art begins. These drawings represent carvings of (1) ducks swimming amongst lotus plants; (2) jays flying amongst chrysanthemums, water being again represented; and (3) the Iris, lilies and water. They are so delicately coloured that these reproductions fail to convey more than a slight idea of the beauty of the originals.

A Billiard Room for the Constitutional Club, Poplar, is in course of erection from the designs of Mr. Brett A. Elphicke, architect, Tunbridge Wells. The room will be 42 ft. in length, by 20 ft. wide, and will be lighted by a leaded lantern over each table. Mr. Riddle, of Poplar, has been entrusted with the execution of the work.

THE "APPARTAMENTO BORGIA," VATICAN, ROME.*

IN the spring of 1885 the Department of Science and Art obtained permission from the Pope to have copies of the frescoes and other decoration taken, and a model made of one of the Stanze of the Appartamento Borgia in the Vatican Palace. This concession was obtained with difficulty, owing chiefly to the fact that the suite of rooms in question is now the "Library of Printed Books," and thus contains an important and considerable portion of the famous Vatican Library. It is greatly to be wished that the Vatican authorities may ere long give consent for photographs of the whole of the decoration of these rooms being taken.

The model, which is destined for the South Kensington Museum, has been carried out in plaster with great care and fidelity to a scale of one-tenth of the original by Signor Consolani, of Rome, who had a principal share in the construction of the model of the great monument to Victor Emanuel, which will some day clothe the north side of the Capitol. The coloured decoration of the ceiling and the wall-frescoes are being copied by Count Lemmo Rossi Scotti.

The "Appartamento Borgia" was so named after its founder, the Borgia Pope, Alexander VI., and its decoration is for the most part the work of Bernardino di Betto (or di Biagio), better known as "Pinturicchio," or the little painter.

The position of the rooms will be seen on the sketch-plan, and will be best recalled by those who know something of the Vatican, as being immediately below the stanze of Raffaelle, the rooms of the former suite coinciding in shape and size with those of the latter and having their look-out over the great cortile de Belvedere.

A door opens directly from the loggia on the first floor of the cortile di San Damaso directly beneath the door of the Sala di Constantino which leads into the loggia of Raffaelle, but access can only be gained through the great hall of the library from the Gallery of Inscriptions.

Unfortunately it is only with difficulty and by special permission that the visitor to the Vatican can obtain access to these rooms, which, apart from what they contain, are only second in interest and hardly second in general beauty of effect to the stanze of Raffaelle.

In the following description of the rooms they have been taken in order as approached from the library. It may also be mentioned here that when the right or left hand is specified it is that of the spectator and not of the personages of the pictures.

Although the decoration of Stanza I. is by some attributed to Benvenuto Bonfigli, the friend and possibly assistant of Pinturicchio, it may well be that all this work is from the designs of Bernardino himself, who was a man, as hinted above, much affected by outside influences at different times, now showing signs of the study of Signorelli, now of Raffaelle. The main part of the ceiling is flat, and rests on a deep, vaulted cove springing from a shallow cornice. Except in the case of the Borgia arms occupying the centre octagon, the whole of the mouldings and other ornamentation of this ceiling (and that of Stanza II.) is painted only, therein differing from the other and more characteristic work of Pinturicchio, which is largely in relief stucco. Part of the centre of this ceiling is given in the illustrations, with notes of the colours used.

The vaulted cove forms three lunettes on each wall, in each being painted three-quarter length figures of a prophet and sybil in converse. The soffits above the lunettes are occupied by armorial bearings and other devices, and on the

* See Illustrations in this number of the *Builder*.

cove itself are two octagons on each side of the room filled with representations of the planets in the upper part, and allusive incidents beneath them. Thus we have a hunt with falcons beneath Jupiter, below Mars a duel in presence of a lady, below Apollo a throned king, a wedding presided over by Venus, people reading and conversing under Mercury, fishing under Luna, a massacre taking place beneath Saturn, and, lastly, a figure of Astrology as embracing the study of the whole.

The effect of the flat part of this ceiling is good; but the cove is somewhat ineffective, on account of the small scale of the figures, though the merit of the composition is considerable.

The form of the next stanza is rather irregular, the width increasing from 20 ft. 3 in. to 24 ft. 7 in., while an arch, springing from responds of considerable projection, spans it at about two-thirds of its length. From a cartouche on the ceiling we learn that the work was done in 1494. It is often attributed to Bonfigli, though this is very doubtful; and, perhaps, it would be fair to suppose that the main scheme is due to the master, though certainly the assistant, whoever he may have been, to whom the execution was entrusted, seems to have allowed himself much freedom in carrying out the master's ideas. In this second chamber, in particular, there are especial differences in the manner of the work from that of the three succeeding chambers, such as an absence of gilding and of relief stucco work in mouldings and ornaments, and the use of secondary colours in the decoration. Though the work of decorating these six chambers extended only from the end of 1492 till some time in 1495, or about three years, yet even this period,—short, when we consider the extent of the operations (for the rooms extend nearly 200 ft. and average 35 ft. wide),—was not entirely spent by Pinturicchio in Rome. It is therefore obvious that he must have left much to be done by assistants, and in the smaller and less important rooms we may conclude that we have a correspondingly larger proportion of their work.

A brief of Alexander VI., dated March 29th, 1493, requires the people of Orvieto, for whom Pinturicchio was then painting certain figures in the cathedral, to wait till his palace was done; nevertheless, they seem to have got the painter there again, for, in March, 1494, the Pope sends for him, and in this year and the following his suite of apartments is completed.

The general arrangement of cove and flat space, in Stanza II., is similar to the room already described; but the treatment of it is unsatisfactory and ill-adapted to the space. The lunettes have half-length figures of prophets, apostles, and sybils, holding long riband-like scrolls, with inscriptions upon them. These are much too intricately arranged over the blue ground, and produce a disturbed effect. Probably these figures, as well as much other of the work, have suffered from unskilful repainting.

The succeeding three rooms are, undoubtedly, the work of Pinturicchio. Each averages 28 ft. wide by 34 ft. deep by nearly 30 ft. high, is divided transversely by an arch with a soffit some 4 ft. wide, and has one window rising but little above the spring of the semicircular vault, which is intersected by nearly pointed transverse vaults on either side of the great arch. The rich colouring and brilliant effect of gilded stucco-work in these rooms is admirably calculated for the amount of light admitted by the one window, placed low, and near the outside of walls nearly 5 ft. thick.

The cross walls of these rooms are set obliquely, but hardly enough to be perceptible, except on plan. Sketches of a pendentive of the ceiling, and part of the decoration of the wall, &c., facing the window, are given among the illustrations. The ribs are of gilt stucco, with fruit and foliage in low relief, with outer mouldings, &c., partly painted, partly in relief. The greater part of the ground of the ceiling is a rich dark blue colour, varying considerably in depth in different parts. The spaces above the side lunettes are filled with some rather clumsy ornament in relief, introducing bulls, amorini, and crowns, the smaller spaces having crowns or rosettes. The arms of the Pope, wherever they occur, are generally in full relief, carved in wood, and attached to the wall or ceiling, and are on a party red and blue ground.

In the Siena library above the two end windows, there are somewhat similar shields of arms supported by angels (fig. 1).

The soffit of the large arch had probably relief stucco panelling similar to that of the next two stanze, but this is now replaced by painted ornament of like design but poor execution. Five octagonal panels are included, that at the crown of the arch having a figure of Justice, the others subjects illustrative of its administration drawn from Biblical and classical history.

Allegorical impersonations of the seven Sciences fill the lunettes beneath the ceiling. Beginning with those opposite to the window, that on the left hand shows "Rhetoric" sitting in a canopied niche-like seat in the centre. She, as well as all the others, is represented as quite youthful. She bears a sword in her right hand, and a suspended golden ball in her left, while winged genii on either hand bear respectively the same symbols. On each side stand three men reading, or in contemplation. The background is a landscape on an embossed gold ground. This fresco is in fair preservation. It, as well as the "Music," shows the influence of Perugino, with whom Pinturicchio had worked as assistant in the "Moses and Zipporah" of the Sistine Chapel in 1484. Next, on the right, is "Geometry," holding a golden quadrant in her right hand. At her feet sits a man describing a problem on a tablet, while other male figures hold instruments or scrolls. The background of this and the next three is similar to that of the "Rhetoric." Still proceeding to the right is "Aridmetrica" holding compasses and an abacus in her hands, and seated on a throne, with a canopy like a sounding-board over, from the angles of which hang festoons.

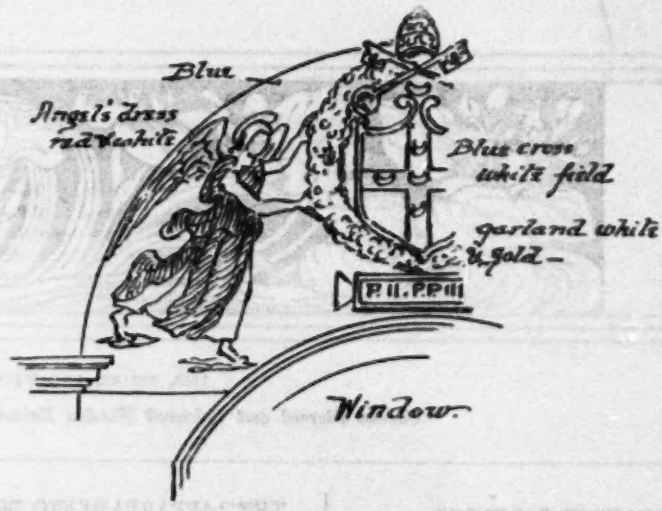


Fig. 1.

"Music" comes next, seated on a throne, with green hangings around, held up by flying genii. At the back is a terrace wall, beyond a landscape. Music herself plays on a violin; a genius on each hand, standing on the step of the throne, plays on a flute. A youth, in rich red garments, upon the left, has a guitar in shape like a violin; another, robed in blue, sitting on the step or dais, plays a harp; a third stands behind. Three girls, upon the right, are singing, while one beats time with a small golden bâton, and with them is an old man.

Very little relief is used in this fresco, though some of the decorations of the throne and personal ornaments of the figures are of stucco. In some of the other subjects it is more freely used, especially in the constructive features. This is, perhaps, the finest in composition and colour of the series, and is, fortunately, in good preservation. Its refined ideality and graceful treatment suggest the thought that in this work the painter was inspired by a more thorough sympathy with his subject than was the case with some others. Over the window the lunette is undivided and is occupied by "Astrology." The representative figure holds an astrolabe; two genii on either side have mystical emblems and instruments, while nine other figures fill up the sides. This is much faded and injured by smoke or damp, a result not to be wondered at when we know that for some time these chambers were actually used as guard-rooms for the Swiss guard.

"Gramatica" sits in a large arched niche with wings, which extend across the picture; she holds a book in her hand but looks upward. This and the last of the series, representing "Dialectica," who sits with hands closed one over the other, are much damaged. "Dialectica" occupies the centre arch of a screen of three, of very good design, festoons in relief stucco depending from the crown of each. The effect of the whole scheme of this room is admirable, owing to the decorative value of the similar treatment of the lunettes throughout, and the harmonising effect of the gold backgrounds.

The division of the large semicircle opposite the window into two spaces, with the arms in the spandrel, is also an improvement in some respects on the plan of treating it as a single subject. There is a good stone cornice to this room, though not so deep and important as that of Stanza IV., the frieze being carved with ox skulls and festoons.

The next room, numbered IV. on the plan, is that of which the model has been executed. As before remarked, the general arrangement is similar to that of No. III., the difference consisting chiefly of the want of a like coherence in the subjects of the frescoes, the use of figure decoration in the ceiling, and the greater use of stucco in the pictures themselves. It is indeed a striking characteristic of the painter's work, and is used by him to an extent which suggests the influence of Crivelli and his sympathy with earlier methods. His faces are evidently portraits, and are expressive and life-like, while the treatment of his subjects is often unconventional, and the attitudes natural when not biassed by the influence of Perugino, whom he occasionally outdoes in affectation of pose. In this series, besides personal ornaments, aureoles, and arms, and, generally speaking, all parts which require gilding, we have large architectural features in four of the lunettes modelled with a projection of several inches. The soffit of the large arch is panelled in octagons and oblongs, the former, five in number, containing figure subjects illustrating the myth of Argos Panoptes. The ornament and mouldings are gilt, the ground being blue. The gilding having become much worn and perished, the red mordant employed shows through with decidedly pleasant effect. The mouldings have been fixed up in short lengths, and the ornament on the ground is poorly modelled, the idea having been apparently to break up the ground rather than to give effect in detail. The general scheme of the interior is shown in the perspective illustration, details being given of the principal parts.

It will be observed how much of the decoration is illustrative of myths in which a bull or cow figures. This is in allusion to the bull charged on the Borgia shield. The appropriateness is but superficial, though as the stories of the "Golden Calf" and of Jupiter and Europa have not been made use of, it suggests the possibility that those were avoided of which the application was more obvious or more appropriate.

The figure decoration of the vault gives in eight scenes the myth of Isis and Osiris. These are painted with a limited scale of colours, in a more conventional style than the wall subjects, the affectedness of attitude being very noticeable in some. Each has some central feature, such as a shrine or altar, in high relief. All the subjects of the wall-paintings are drawn from the Lives of the Saints, except the Visitation of the Virgin, which is apparently chosen to balance

the Visitation of St. Paul adjoining it. That opposite the window represents St. Catharine before the Emperor Maximinus at Alexandria. A large triumphal arch, resembling that of Constantine, occupies the centre middle distance. The emperor under a canopy in front of a group of courtiers listens to the saint before him, while a doctor in a yellow robe combats her arguments from a book held up by a kneeling boy. A large group of people behind him is good in colour, and presents interesting types of the painter's fellow-citizens. Several horsemen fill up the right of the fresco; the cloak of gold brocade of one of them is modelled in stucco. In Nos. 2 and 3 are shown events in the career of SS. Barbara and Juliana. The former has the tower from which the saint has been miraculously delivered for its central feature, a rent in its side showing the manner of her escape. She departs towards our left, her father hurries away, sword in hand, in the opposite direction, two men accompanying him. The figure of the saint, in a pale crimson dress, is a good deal damaged; the father, whose principal garment is of the splendid deep crimson, inclining to scarlet, found in several other of these works, is better preserved. In the distance are small figures showing further episodes in the story. A large fountain with deep polygonal basin raised on steps occupies the middle of No. 3. The principal action concerns St. Juliana, who is here being bestowed by her father in marriage to an idolater. These three figures are to the right; a stag, some rabbits, and other small animals fill up the left foreground. These are well drawn, contrasting favourably with the animals found in most contemporary works. A highway runs across

Ceiling of Stanza VI.

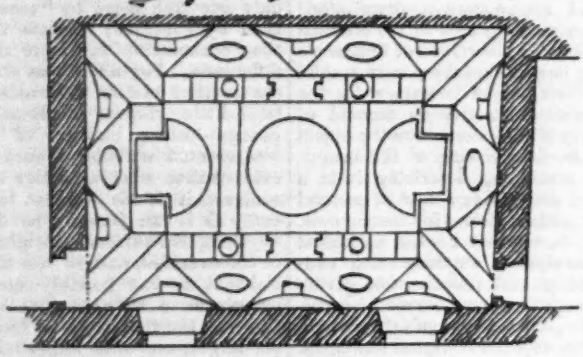


Fig. 2.

the landscape, along which a procession of people leads the saint to execution.

Above the window is the "Martyrdom of St. Sebastian." It is in good preservation, but has been much restored. In many respects it is a fine work: the nude figure of the saint is well drawn and free from affectation; the action of some of the archers is vigorous and not overstrained, and, owing presumably to its position, where relief work would have had no effect, no stucco decoration has been used. There are three or four figures on either side, chiefly the archers, and an old man sitting on the ground on the right, who appears to be superintending the execution. St. Sebastian is bound to a column against a ruined mass of brickwork, such as the painter might have sketched then, even more readily than now, in Rome itself. The left background is a landscape of a lake and hills,—on the right we see the Colosseum and other buildings in ruins. An angel above bears a crown of martyrdom.

No. 5 shows the "Visit of St. Elizabeth to the Virgin." Two-thirds of the background is filled with an architectural composition of arches, supporting a balcony and loggia. There are some good female figures spinning wool on the right, but the work is smoky in appearance and faded in parts.

The subject of No. 6 is the "Visit of St. Antony to St. Paul the Hermit in the desert of the Lower Thebaid." They are shown seated on the rocks, which rise in the middle of the picture, in the act of dividing a small loaf which a raven has brought. A rill of water issues from the rock between them, and a bell is hung on the crag above St. Paul. St. Antony, a fine venerable figure, in a rich purple robe and white tippet or cowl, faces St. Paul, whose only garment is of a plaited texture, very coarsely woven, as if of straw or grass. Behind him are two disciples, poorly dressed, in striking contrast to the three figures on the opposite side behind St. Anthony. These are shown in the sketch, and of course refer to the famous Temptation of the saint. The centre figure has a crimson dress, shaded in darker self-colour; her attendant on the left, who bears a box of perfume, a yellow robe over blue; the other has one of rich blue with brown sleeves. The Satanic origin of this group is obvious from the horns, claws, and wings. The distance has pleasant bits of lake and mountain scenery. Some of these glimpses of landscape show observation and study of nature. Atmosphere and distance are very fairly given, though there is often too much small detail introduced. It is to be noted that Pinturicchio executed for Innocent VIII. (the predecessor of Alexander), in the Belvedere of the Vatican, a series of landscapes of Italian cities, which have now nearly disappeared. In this, as in other of the frescoes, especially the St. Catherine, we have numerous plants painted in the foreground, the flowers being composed of little beads of stucco, clustered or singly. They become more frequent in proportion to the distance of the field represented, so that the ground in the rear of the arch is quite thickly strewn with them. The same means are then taken to represent the glow of the descending sun, where the beads become less closely studded together as the distance increases.

Over the door, below No. 3, in a circular stucco frame, is a three-quarter length of the Virgin teaching the infant Christ to read from a book. It is much damaged and faded in colour. The cornice of this room is of stone. The upper ovolo is cut with a deep guilloche, and the bed-mould with the "egg and tongue." The corona has crowns in high relief, alternating with foliated and other ornament in great diversity. The variety of ornament in the frieze is also noticeable. All this work is reproduced in relief in the model executed for the Department, which terminates in front of the main arch, and thus includes frescoes 1, 2, and 6.

Although hooks remain from which hangings have been suspended, it has been suggested by some, not without foundation, that the walls beneath the cornice were decorated with painted and gilt representations of drapery, like those below the older paintings in the Sistine Chapel. The cornice was also probably partly gilt.

In Stanza V. the main arch has no responds. The scheme of ceiling decoration is shown in the drawings. Half-lengths of prophets take the place of the Osiris series in the last room, each having reference, through a prophecy inscribed on a scroll, to the subjects on the walls, which, with the exception of the last described, are taken from the Bible. The arabesque of bulls and foliated ornament on a blue ground is very rich and beautiful, the effect of the whole ceiling being even finer than that of No. 4. The preponderance of the primary colours,—red, blue, and gold, and the use of the low reliefs in stucco,—inevitably bring to mind the colour-design of the Moors, and suggests comparison with it. In the Italian work, blue decidedly preponderates over the red, and gold is not quite so freely used. In both, however, the ground is hardly ever gilt, and is always broken up by small unobtrusive ornament, so as to prevent flatness and poorness of effect. Here and there are certain direct resemblances to Moorish ornamentation: as, for instance, in the interlacing ornament of the ribs of ceiling No. IV., and the similar painted ribs and panel borders,—themselves interlaced, too,—of Stanza II.

The face of the main arch is now quite plain, having apparently being deprived of its decoration. Part of the soffit is shown among the sketches. Taking the frescoes in the order of events, we begin with that on the left, on the wall facing the window. This is the "Annunciation." Gabriel on the left, in red, the Virgin in blue, kneel on either side of a vase of white lilies. There is a composition of two smaller arches flanking a much larger one in the background, the Deity, surrounded by cherubs, filling the centre compartment. No relief is employed, and some parts have become smoky and blurred, but the decorative effect of the whole is very good, owing to its simplicity and symmetrical arrangement. Malachi, with the text, "Ecce, ego mittam angelum meum, meum nomen timentibus orietur vobis," has reference to this subject.

Proceeding to the right we have the Nativity. The Holy Child lies on the ground in the centre, his mother and Joseph in adoration kneel on either side, and two angels behind. Others are shown in the sky and standing on the thatched roof of the stable to the right. To this subject pertains the figure of Isaiah in the ceiling with the text "Cognovit vos possessorem."

The "Adoration of the Magi" follows. The colour throughout this has been very good, though now rather damaged in parts, especially the Holy Family to the left. It is very noticeable that even where the draperies, &c., may be much affected by damp, the flesh tints still come out well and appear to have suffered little.

The medallion above represents David with the prophecy "Adorabunt eum omnes reges." The next subject is the Resurrection. Above the tomb is Christ in a large vesica surrounded by cherubs. He is in a white robe lined with blue, has a white flag with a red cross in his left hand, and his right raised in benediction. One soldier sleeps in front of the empty sarcophagus, two others kneel in adoration on the right. On the left is a portrait of Alexander VI., kneeling with hands raised in prayer. The background is an open landscape. Zephaniah (Sophonias) with the text "Resurrectionis meæ expecta in die," occupies the circle above. The Ascension is shown in the large space over the window. Christ, in a white garment, is surrounded by a golden vesica with a rainbow-tinted border. High up an angel kneels on either side, and many cherubs and birds are in the air around. The Virgin and five Apostles are standing or kneeling on the left, and seven on the right. The horizon is placed rather high and the landscape behind has a lake and trees with hills on either hand. A dark purplish red or plum colour is used in one of the dresses, which the painter has not used elsewhere in these stanze. The figure of Micah, with the inscription "Ascendit pandens iter ante eos," refers to this event.

The "Descent of the Holy Spirit" is here shown as taking place in the open air, the virgin kneeling in the centre of the picture, the apostles ranged equally on either side. The dove descends upon them surrounded by a nimbus of rays and an effulgent company of cherubs.

The prophet Joel in the circle above has the inscription "Effundam de Spiritu meo super omnem carnem."

The "Assumption of the Virgin," the only subject drawn from traditionary sources, is the last of the series. The sarcophagus occupies the centre foreground, the mouldings being in stucco. The Virgin, clothed in white in a dark blue vesica with a gold centre, is in a sitting attitude, the border of the aureole being composed of cherubs and small purplish clouds. Two angels hold a crown above her head, while two on each side have musical instruments, like those in Pinturicchio's picture in the Vatican gallery. St. John kneels on the left in a blue dress, with rich red robe or cloak over it, while on the right is a kneeling figure, apparently a cardinal, in a plain rich scarlet dress. There is a dark landscape background. The colour and state of this work are alike excellent. In the ceiling we have Solomon bearing the inscription "Exaltata sum in Libano quasi cedrus"; an eighth prophet, Jeremiah, having apparently no special reference to any design.

We now come to the largest chamber of the series, corresponding to the Sala di Costantino of the Stanze of Raffaelle. As originally deco-

rated by Pinturicchio it was known as the hall of the Martyr-Pontiffs, from the circumstance of a series of portraits of these Popes having filled the lunettes. Most unfortunately all this work was destroyed within a few years by Leo X. (1513–22) and replaced by the work of Giovanni da Udine and Perino del Vaga in their well-known style. There is a deep cove pierced transversely and forming three lunettes on each long wall and two on each end wall. The general arrangement of the ceiling is shown on the plan (fig. 2). The circle has four female figures hand in hand, some of the other larger divisions having the days of the week represented by various deities. Thus we have Jupiter in a chariot drawn by eagles, Mars drawn by horses, Venus by doves, Mercury by cocks, Luna by female figures, Saturn by dragons, and Apollo by horses. There are also the signs of the Zodiac and other emblems. The evidence which these chambers afford of the progressive secularisation of art is interesting. We note a marked advance in this direction in the art of Pinturicchio himself, though, as already noted, his sympathies in many respects were with earlier ideas as to treatment and *technique*, and the choice of subjects was probably not entirely his own. As an instance we have classic and mythological subjects put on the same footing as Biblical ones in the illustrations of Justice, and such a subject as the history of Osiris freely chosen. In this room his work is soon swept away to give place to a merely mythologic scheme. The martyred Popes are ousted to make room for the pagan deities whom they regarded as devils and whose cult some of them had given their lives to destroy, and "thus the whirligig of time brings in his revenges."

The spirit which informs the work of Pinturicchio is no longer that of the intense personal belief seen so plainly in the earlier masters. Biblical or theological subjects, or even the Lives of the Saints, hardly move him to his best efforts. It is in allegory that he puts forth his full strength and most loving care, and his thought is not so wholly given to edification but that he can bestow much pains on individual portraiture, especially in the subordinate personages, where convention has not decided on certain types, can indulge his predilection for gorgeous colour, for wealth of decorative detail, and for the added charm of landscape, architectural or natural. In short, for the earlier singleness of aim concentrated or telling the story, and inculcating the moral, is substituted a multiplex charm and attraction, whose aim, if single in any sense, is to produce beauty and harmony of decorative effect. His work marks the transition from the Umbrian to the Roman style, from the spiritual grace and religious sentiment of Perugino to the dramatic vigour and individuality of Raffaelle's Roman period. The change is only a part, of course, of the great change going on in the outside world, from the moral earnestness and serious spirituality, the richness and fulness of invention (within certain prescribed limits) which marks the temper of the Mediæval mind, to the cheerful secularity and eclecticism of the Renaissance.

But, although the signs of change in this painter's work are strong and unmistakable, we feel that he is hardly so far removed from the earlier spirit as from that which animates the style of the Cinque-cento. The inequality of value to be observed in his work is to be attributed to the dependence he must have placed on the work of assistants and pupils. He was apparently a man of great facility, and an indefatigable worker, and this was what, as Vasari remarks, made him in such request with impatient patrons in a period of feverish haste, not, as in the nineteenth century to grow rich, but to have beautiful surroundings. The extent of his work in Rome alone, extending over eighteen years or thereabout, is very great, and he was not employed during the whole of this period (1484–1502) at Rome, for in 1491–2 he executed some decorations in Orvieto Cathedral, in 1496 several altar-pieces for Perugia, and in 1500 a series of frescoes in the collegiate church at Spello. Perhaps the accusation of his contemporaries that he let the love of gain weigh with him in the too rash acceptances of commissions was justified; still, with all its inequality of merit, it is not going too far to say that we owe to the genius of Pinturicchio some decoration which may be ranked among the fittest and most beautiful ever produced.

F. W. WOODHOUSE.

"MEASURE AND VALUE."

"Scalpri salubris ictibus
Et tunsione plurima,
Fabri polita malleo,
Hanc Saxa molem construunt,
Aptisque juncta nexibus
Locantur in fastigio."

"With many a cunning stroke by mallet wrought,
The ringing chisel o'er the surface sped
To shape this mass, of stone with labour brought
And laid with level joint on even bed.
What patient skill did vaults and arches close
From base to gable, as the building rose."

THE above Latin quotation is taken from a well-known Mediæval hymn used at the dedication or anniversary of the consecration of a church. It is not possible to translate it exactly, because there are some idiomatic words and expressions used, the meanings of which probably refer to methods of workmanship which are no longer practised, so we have endeavoured in the translation to give rather an impression of the meaning than a paraphrase. This singular passage, however, serves to show how, in Mediæval times, the mere material act of building was, to a great extent, regarded as a religious work. At the present day we should scarcely think of celebrating the operations of the mallet or the chisel, or the careful jointing of stonework, in a hymn, yet it may be a very pertinent question to ask whether the writers of the Middle Ages are remarkable in giving this religious aspect to building, or whether we are remarkable in *not* doing so? At first sight, people will be inclined to say that the question is a ridiculous one, and that there cannot be the slightest doubt that the Mediæval usage was, at any rate, tinctured by a kind of superstition, and that the superior intelligence of the present day must undoubtedly take the correct view of the case. If, however, we come to this conclusion, it is very difficult indeed to account for the minute and circumstantial descriptions given in the Sacred Scriptures of the erection of the Tabernacle in the desert, and of Solomon's Temple. It may be said that these were special cases, and, therefore, it was necessary for the cause of religion itself to give an account of them; but, surely if this alone were the object sought, a few words speaking of the magnificence of the structure, describing it in a poetical manner, and giving a sort of general notion, would be quite sufficient for the purpose. But instead of this, what we read is a detailed architectural description, entering into constructive particulars and peculiarities, giving dimensions of various parts, names of architects, builders, &c., and that, singularly enough, in cases where they were not Jews, but strangers. Then, again, in the Sacred Scriptures we find denunciations against slovenly buildings and slovenly builders. The most remarkable example of these is in the book of the Prophet Ezekiel, where proceedings strongly resembling those of the nineteenth-century "jerry builders" are described and denounced:—

". . . And one built up a wall, and, lo, others daubed it with untempered mortar. Say unto them which daub it with untempered mortar that it shall fall: there shall be an overflowing shower, and ye, O great hailstones, shall fall, and a stormy wind shall rend it. Lo, when the wall is fallen, shall it not be said unto you, Where is the daubing wherewith ye have daubed it? Therefore, thus saith the Lord God: I will even rend it with a stormy wind in my fury; and there shall be an overflowing shower in mine anger, and great hailstones in my fury to consume it. So will I break down the wall that ye have daubed with untempered mortar, and bring it down to the ground, so that the foundation thereof shall be discovered, and it shall fall, and ye shall be consumed in the midst thereof: and ye shall know that I am the Lord. Thus will I accomplish my wrath upon the wall, and upon them that have daubed it with untempered mortar, and will say unto you, The wall is no more, neither they that daubed it." *

Now, although this is to be understood in a figurative sense to apply to the false prophets of Israel, yet there cannot be a doubt that it is also intended, to a certain extent, to be understood literally as a very strong denunciation against bad and slovenly building, and we could scarcely imagine the operation referred to being so carefully described unless special attention was intended to be directed to a dishonest and dangerous practice connected with the art of building, and a species of fraud probably somewhat extensively in use in the time of the Prophet Ezekiel. The "untempered mortar" referred to undoubtedly means mortar without lime in it, *i.e.*, mud,—we have more than one reference to the practice of using mud for mortar in Scripture. As we have previously pointed out, this description might be taken as applying to our present "jerry-building," and it shows the antiquity of that abominable institution. Very much has been written of late years against modern builders and their practices, but at any rate they cannot be blamed for having introduced the system, though it was probably never so extensively practised as at the present time, and undoubtedly a good deal of the abuse levelled at the jerry-builder is well deserved. There are, however, two sides to every question, and when we denounce men for dishonest practices, it is well to see to what extent these men may be victims instead of culprits. If, for instance, the defective state of the laws, general usage, or the avarice and cupidity of others, make it difficult for a man to be honest in his business, or hold out such a premium to dishonesty that a man can only remain honest greatly to his own personal loss and risk, it is clearly our duty, while denouncing the evil practices, to attempt in some way to remove or mitigate those circumstances which have led to the prevalence of the evil. And now the question arises,—can we point to any particular cause for the present great prevalence of false and slovenly building? We think we can. There is an impression among a large portion of the public, that all builders are rascals, but there is really no reason why this should be the case, and there are some reasons for supposing that the builders are more sinned against than sinning. Amongst the circumstances which are so detrimental to architecture, building by contract is one of the worst. And our chances of getting really good work and honest workmen would be greatly enhanced by giving up contracts altogether, and adopting the system of "measure and value." The writer was informed by an architect of very high standing in his profession, that in building a very costly and elaborate church, he had found the cost only one-fifth more by "measure and value" than by contract; whereas the superiority of the workmanship far more than made up the difference. Pugin also was strongly opposed to the present system of contract, and his beautiful little church at Ramsgate,—the most poetical-looking building of modern times,—was erected without a contract. It is quite evident that when a builder is bound down by contract, it is his interest to do the work as badly as it can possibly be done, and to avoid anything like variety or originality of ornament or construction, and to use the cheapest material that he can possibly come across. We do not say for a moment that builders always do this; on the contrary, the builders of many of our largest and most important public buildings have had to seek relief in the Bankruptcy Court from attempting to carry out their work in an honest manner. This, too, in cases where the client was well able to afford the extra outlay which had resulted in the cost of material; but no, *there* was the contract, and the client stuck to it as Shylock did to his bond: he *would* have the pound of flesh. Those who know how our public buildings are erected cannot but feel a kind of shame when they realise the fact that instead of being a source of credit and gain to the contractors they have in too many instances been the cause of ruin and intolerable vexation; and what makes the matter worse is the fact that the honourably scrupulously just man it is who suffers, whereas the man who scamps the work, or the jerry builder who runs up a series of abominable "semi-detached villas" often makes a fortune.

It does certainly seem contrary to all sense of justice that a builder should be bound to carry out a work which, owing to causes over which he has no control whatever, may ruin him. Yet how often is this the result of building by contract? All agreements between men must be to a certain extent conditional, even when that agreement is ratified by an oath. Thus, for instance, the Queen in her coronation oath promised to maintain the Established Church of Great Britain and Ireland. Circumstances arose which rendered it necessary or advisable that the Established Church of Ireland should be no longer maintained, and Her Majesty had to give her consent to an Act of Parliament which put an end to the establishment and endowment of that religious body. Yet we think no man would dare to draw from this fact the deduction that the coronation oath had been violated.

Now if in such matters as this circumstances alter cases, why should it not be the same in simple matters of contract? Of course we do not for a moment suggest that the man him-

* Ezekiel xiii. 10–14.

self should be a judge of his own case, but we think there should be some kind of court of appeal or of arbitration which should have the power of releasing builders from being forced to carry out contracts which, owing to some alteration in the circumstances of the case, render it certain ruin to him and a most unfair advantage to his employer. But probably the best way would be to do away with contracts altogether, for as long as they exist we shall never again see the kind of work which was done in the Middle Ages; and as to any religious element in building, where every one connected with it mistrusts and tries to take a rise out of his neighbour the very idea is an absurdity. Where client, architect, builder, foreman, and workmen are all playing a "game of grab," so as to put the most money into their pockets without the slightest regard for the work, how can we expect to find poetry or art in our buildings? If we read two great accounts of building given in the Sacred Scriptures,—that of the Temple of Solomon and of the Tower of Babel,—the former reads like work being done according to measure and value, and the latter was evidently "a contract job." "The people is one and they have all one language . . . . Let us go down and there confound their language that they may not understand one another's speech."*

Before this tower was built, the people had all one language, and understood one another; but afterwards they were all scattered abroad, "and they left off to build the city." The *one language* in building has gone from us. We have no one language, but a Babel of styles, and we have no combined interest in the work, but every one is simply working for himself. Our language has been confounded. We no longer understand one another, and our views and interests are scattered. Now may it not have been the fear of this happening, and the warnings contained in the sacred writings, which led men to regard building as a religious act? And by depriving building of that religious aspect, may we not have destroyed the ancient safeguards, and opened the doors to selfishness, corruption, and disunion?

Our drawing is intended to show the varied treatment which results from building *without* contract. It will be noticed that the great church has its towers placed obliquely to the axis of the building,—an uncommon treatment, examples of which, however, exist at the church of Ingolstadt, in Bavaria, and foundations of towers so placed were formerly to be seen at St. Ouen, at Rouen. They were, however, destroyed during the "restorations," and the new towers placed square with the front, in the ordinary way. With the exception of this, we believe the whole treatment of the front to be original, both in composition and detail.

H. W. B.

* Genesis xi. 6-7.

BUILDING IN ABERDEEN.

DURING the year just ended trade has been fairly active both in the building and granite-polishing departments. Neither employers nor employed have had any reason to complain as to the volume of business, although the former grumble very much as to the effect of over-competition in forcing prices down to unremunerative rates. A number of private persons have laid out detached parts of streets, while a more systematic attempt in this direction has been carried on by the City of Aberdeen Land Association in the Fountainhall and West End districts. The Municipal Corporation has also engaged, either alone or in conjunction with other parties, in extensive public improvements. The first section of the Rosemount Viaduct, viz., the part from South Mount-street to Union-terrace, was completed in the spring, involving a present expenditure of about 50,000*l.*, and the demolition of a number of buildings, displacing about 600 individuals. The extension of the Viaduct to the Schoolhill by a mound and three arches, has also now been contracted for and commenced. In addition, the Corporation has dealt with an unhealthy area at the Shorelands, near the Harbour, where both flooding and fever used to be prevalent, and in virtue of the powers obtained by a provisional order under the Artisans' Dwellings Improvement (Scotland) Act, has razed a number of buildings in certain former lanes in that quarter. The level has now been raised about 4 ft., and a new street, 40 ft. wide, called "Mearns-street," leading from Regent Quay to Virginia-street, opened up. This new thoroughfare will be very convenient for the erection of warehouses in connexion with the harbour and docks. The population displaced here amounted to about 800 persons, generally of the poorer classes, and unable to pay a large rent. These consequently migrated temporarily to the Gallowgate and Justice-street districts, thereby aggravating the pre-existent overcrowding in these quarters. Some relief has now been afforded by the opening up of Summerfield-terrace,—a street in the east end leading between King-street and Park-street,—which has already been wholly feued and built on with working-class houses. Urquhart-road, farther to the east, has also been extended to the Links by the Town Council in conjunction with the Trades Hospital, and feuing has commenced there, as well as at an extension of Colville-place. Fonthill-road has been widened to about 50 ft. throughout, and opened up to Holburn-street, while Bon-accord-street has been extended at an improved level by a bridge over Rosebank-terrace. The much-talked-of Riverside-road, including a new elliptical arch at Wellington Bridge, has been constructed, partly by the Aberdeen Harbour Commissioners, and partly by the Town Council. The total extent of this carriage-drive is about one mile and a quarter, from Victoria Bridge to Allanvale. The increase of the population has compelled the construction of a new water-house and pumping machinery at Culta, while the new supply reservoir at Mannofield has been partly finished and partly contracted for, at a total cost of 15,310*l.* The small estate at Westfield has been purchased by the Town Council, and new streets are being laid out there, while the level of Correction-wynd has been lowered, and various paving and minor improvements have been executed.

COMPETITIONS.

New Markets, Carlisle.—At the meeting of the Carlisle Town Council on the 21st ult., Mr. Creighton moved "That the plan marked 'Arm'd at all Points" be selected as the design for the new market, subject to the author satisfying the Market Committee as to cost, construction, and other details." Mr. R. S. Ferguson seconded the motion, which was agreed to. Messrs. Cawston & Graham are the authors of the design in question, which will cost about 20,000*l.* to carry out.

Townhall, Bethnal-green.—The plans sent in for the proposed new Townhall at Bethnal-green were exhibited in the Board-room of the Vestry last week. The first premium (one hundred guineas) was awarded to the set of plans marked "Orient." The second premium (fifty guineas) was awarded to the plans bearing the motto "Use and Profit." According to a local journal, the third and fourth premiums were not awarded, and the names of the successful competitors were not appended to the premiated drawings.

THE RIGHT OF DISTRICT SURVEYORS TO ENTER DWELLINGS.

MR. F. M. B. CALCOTT, of 52, Lincoln's Inn-fields, was summoned by the Metropolitan Board of Works, at the Marylebone Police-court, last week, before Mr. Cooke, for the payment of 4*l.* 6s. 9d., being fees incurred in the inspection of Nos. 8, 10, and 12, Eresby-road, West Hampstead, by Mr. Thos. Blashill, the District Surveyor.

Mr. Norman Bevan represented the Metropolitan Board of Works, and Mr. Holloway, solicitor, was for the defence.

At the outset of the case, Mr. Bevan drew the magistrate's attention to the fact that while the 72nd section of the Building Act gave the Metropolitan Board power to shore up dangerous buildings in order to secure the safety and protection of the public passing by, the 80th section stated that if the interior of the building was dangerous, it was within the power of the magistrate to order the removal of the inmates. He therefore contended that the Act gave the District Surveyor the right to enter a building for the purpose of inspection where there was a doubt as to the safety of the inmates, owing to the condition of the house. He called

Mr. Leach, the tenant of No. 12, Eresby-road, deposed that about 4 ft. square of the ceiling in the middle of the top bedroom of his house fell down, leaving other portions in a faulty condition. The ceiling on the top landing also fell.

Mr. Thomas Blashill, District Surveyor, said he received directions from the Metropolitan Board of Works to inspect several houses in Eresby-road. He did so, and sent a certificate to the effect that the structures were dangerous, and that the owner should be called upon to take down the plaster ceilings of the houses. Parts of two of the ceilings had fallen, work was in progress at the time, pieces of zinc being placed over cracks in the ceilings of some of the other houses, and screwed to the joisting above. By the Magistrate.—In his opinion the ceilings were dangerous. He produced some of the material which fell. Instead of being of hair, lime, and sand, it consisted of dirt, a little lime, and instead of hair he found here and there a little string or such like stuff. The houses were put up, he believed, in the spring of last year. There was nothing to form a good key. The weight of the material should be about 9½ oz. the square foot, but this weighed about 7 lb., and the thickness was nearly 2 in., or about double what it should be. In his opinion the Act fully entitled him to inspect the interior of the houses, because the internal portion of the structure might be dangerous, and not the external portion.

Mr. Holloway, for the defence, said his contention was that the Act was not intended to apply to the interior of a house simply for the protection of the inmates, except in the matter of fire, drainage, or the size of rooms where they were of so small a size as to be injurious to health. He denied the right of the District Surveyor to go in and inspect the premises under the circumstances.

Mr. Cooke.—You admit the right to go in to inspect a flue or a drain. And if that is so, if they have the right to go in for that, surely they may go in for other matters? It is a very important power, which ought to be exercised, because, as houses are now being built, the inmates are often in great peril. The houses are built like straw, and I fear there are a very great many of them about.

Mr. Holloway then called Mr. W. Matthews, who said he had been a surveyor for sixteen years. He received a letter from Mr. Calcott on the 9th of July, and went to inspect the houses. He found Mr. Tebboth, a builder, had taken down the loose portions of the ceilings and had repaired them. The other parts of the ceilings were quite safe. He (witness) gave directions that entirely new ceilings should be made, as that would be the best way of doing the work, both in the rooms and on the landings. The part which fell was exceptionally thick, owing to the joisting being out of the level.

Mr. Tebboth, a builder, having given evidence of doing the work,

Mr. Cooke said: I have no doubt this house was dangerous, to a certain extent, and that inspection was necessary, and must be paid for. The only question is as to whether they had a right to inspect the inside. I shall hold that in regard to No. 12 the inspection was rightly done.

Mr. Bevan asked for costs.

Mr. Cooke made an order for the whole amount claimed, with 2*l.* 2s. costs.

PROVINCIAL NEWS.

Birmingham.—With the end of the year the members of the Birmingham Conservative Club will vacate their present quarters in Union-street, and early in the year just entered upon will take possession of the new building which has been erected for them in Temple-row. The building, which is from the designs of Messrs. Osborn & Reading, architects, Birmingham, has cost about 13,000*l.*, exclusive of site, &c. The site contains 800 square yards, and the whole of this area is covered by the new buildings, which are three stories in height, with a ground floor and basement. The frontage to Temple-row is only 45 ft. in length, so that the building is of rather narrow elongated form, but the architects have contrived to provide conveniently-arranged and well-lighted and ventilated suites of rooms. The style of architecture adopted is a Roman type of the early Italian Renaissance, and the chief features of the front are the boldly-outlined entrance portico and lofty bay windows which are carried up on either side to the level of the third story, with balconies and parapets on the two principal floors. The main entrance from the street is by a broad flight of steps beneath the portico, and leading to the ground floor, which is raised sufficiently above the street level to secure the privacy of members from curious passers-by. The whole of the façade is in white stone, from the Portland and Hollington quarries. Messrs. Barnsley & Sons, of Ryland-street, have carried out the whole of the building work.

Cockermouth.—Messrs. Jennings Brothers, of Cockermouth, are now doubling their brewery, and also increasing their maltings. The architects entrusted with the work are Messrs. H. Stopes & Co., London.

Silloth.—The *Carlisle Journal* publishes a description of Messrs. Carr & Co.'s new mill at

Silloth, which is now nearly completed. The mill is situate on the west side of the new dock, and parallel to the extensive grain warehouse belonging to the North British Railway Company. It is claimed that the new mill will be absolutely fireproof, every portion, down to the smallest detail, being of incombustible materials. The walls are of a specially hard brick, manufactured by the Birkby Brick Company, near Maryport, tested before use and found to stand a crushing strain of over 70 tons to the superficial foot. The fireproof floor and roofs, which have been carried out by Messrs. Homan & Rodgers, engineers, Dawson-street, Manchester, are formed with their patent section rolled iron girders and joists, and filled in on the flat-arch system with concrete of a special kind. The surfaces are faced in quartz finish, and the roofs are laid with Seyssel rock asphalte. The ceilings have been done by the same contractors with Robinson's patent cement. The contract for all the ironwork has been carried out by Messrs. Cairns & Co., and Messrs. Tweedy & Co., of Carlisle. All the windows are fitted with Lindsay's patent wrought-iron sashes, and are of malleable iron with stamped boss intersections. A strong iron roof, nearly 40 ft. span, designed by the architect to suit the numerous iron worms over the silo bins, has been erected at a height of 56 ft. above the ground by the same firm, and covered with Vieille Montagne zinc Italian rolls, supplied by Messrs. Braby, of Liverpool. The engine and electric light-houses are decorated with glazed bricks and Burmantofts faïence ware, manufactured by Messrs. Wilcock & Co., of Leeds. The engines are compound and of 300-horse power, being manufactured by Messrs. Douglas & Grant, Kirkcaldy. Lines of rails have been laid on both sides of the building and through the warehouse to facilitate the transit of goods to all parts. The chimney-shaft rises to a height of 120 ft. above the ground. It has about 300 ft. of flue capacity from the boiler furnaces, and possesses one of Green's patent fuel economisers in the centre of the feed-passages. The shaft is circular from the foundation, and has a massive square base and terra-cotta cap. This material has been adopted instead of stone for the window sills, cornices, parapet walls, pediment, and ornamental work, and has been supplied from the well-known works of Messrs. Edwards, Ruabon, North Wales. To admit of the rapid erection of the buildings, hydraulic mortar ground in mills has been used throughout, one-half being supplied by the Jarrow Cement Company and the other half by Mr. Armstrong, from his recently-opened quarries at Kershopefoot, near Penton. The general builders' work has been carried out by Messrs. Beaty Bros., contractors, Carlisle, in about nine months. Mr. T. Taylor Scott, of Carlisle, is the architect.

Walsall.—On Sunday last the new "church house" for the parish of St. Matthew, Walsall, was opened by the Bishop of the diocese. The building, which is situate at the corner of Temple-street, and opposite to the principal entrance to the parish church, has been designed by Mr. James Davis, architect, Walsall, and erected by Mr. T. Taylor, of Walsall. It is in the Perpendicular style.

CHURCH-BUILDING NEWS.

Aylesbury.—The Bishop of Oxford on the 21st ult. opened Walton Church, Aylesbury, which has been considerably altered, under the superintendence of Mr. Brett A. Elphicke. The interior has been thoroughly cleaned, refloored, and reseated. A baptistery, bell-tower, and two porches have been added, and a new three-light lancet window inserted in old wall. The work is in Monk's Park Bath stone and flint; the baptistery in red brick. Mr. Landon was the clerk of works.

Tharston.—Tharston Church, Norfolk, has just been reopened, after complete restoration of the tower (the stair turret of which fell a few years since) and also of the north porch. The bells have been entirely rehung. The work has been done by Mr. E. L. Semmence, builder, of Wymondham, under the superintendence of Mr. E. Preston Willins, Diocesan Surveyor, Norwich.

Warlingham.—All Saints' Church, Warlingham, about three miles and a half from Croydon, has recently been restored, under the superintendence of Mr. P. M. Johnson. It was partially restored in 1857 by Sir Gilbert Scott, but at that time no repairs worth mentioning, either to the roof or the walls, although they must have been required, were undertaken. The church consists of a nave without aisles, and chancel, with vestry on the north side and a porch on the south side. The total length is about 56 ft. and the width is about 19 ft. There is no mention of the church in Domesday, but there are traces of Norman masonry in the low-side window of the chancel. The plan and general arrangements show clearly that the church must have been enriched in the thirteenth century, and it is, in fact, a very perfect specimen of Early English, the original plan remaining unaltered, the only additions being the porch and the vestry, the former built about 1678 and the latter about sixty years ago. The walls are of flint and rubble, rough-cast externally with a sort of pebble concrete; the ashlar is a soft calcareous sandstone, probably from Reigate or Godstone, which was much perished in places, the weatherings of the buttresses having been tiled. The roof, which is covered with red tiles, has a tiled bell-turret at the west end, erected in 1820. In the interior of the church, close beside the north door, is a painting in distemper of the legend of St. Christopher. This painting is about 9 ft. high, and, from its style of execution, appears to be of the same period as the church. It is in very good preservation, and has not been interfered with during the recent restoration. The tracery of the east window, which is modern, was inserted in 1857, and probably follows the lines of the original Decorated late window. The drop-arch and jambs are original. Prior to the year 1857 the church had a seventeenth-century pulpit, with carvings of Adam and Eve, &c. (described in a paper by Mr. Ralph Nevill, F.S.A., in the Transactions of the Surrey Archæological Society, vol. vi.), which has disappeared.

Wishaw.—The parish church of Wishaw, near Birmingham, has just been renovated and reseated in pitch-pine from the designs of Mr. A. B. Phipson, of Colmore-row, Birmingham. The work has been executed by Messrs. Jones & Willis, who have also supplied the new choir stalls, pulpit, Communion fittings, lectern, &c.

Northern Architectural Association.—An ordinary sessional meeting of the Northern Architectural Association was held on the 22nd ult. in the Old Castle, Newcastle. Mr. E. Shewbrooks presided. The Hon. Secretary (Mr. F. W. Rich) intimated that a communication had been received from the Royal Institute of British Architects stating that a general conference of British architects would be held in London during the week commencing 2nd May, 1887, and asking that the Northern Association should nominate a member to sit as representative on the special committee. Mr. Hoskins was appointed to represent the Association. The Hon. Secretary also read a communication from the Manchester Society of Architects, pointing out that preparations were being made for a Jubilee Exhibition at Manchester, and stating that the primary object of the Exhibition was to illustrate the art progress of the nation during the Queen's reign. The Committee of the Exhibition were willing to allot a space as an Architectural Court in proximity to the Fine Art Section, in which might be exhibited designs for, or drawings and photographs of, buildings erected since her Majesty's accession to the throne. The Secretary was instructed to say in reply that the communication had been laid before the members, and also that the Exhibition about to be held at Newcastle would perhaps claim the attention of the members first. The Hon. Secretary then read a paper on "Architectural Pupilage, and its Bearings on Federation."

Sewerage Works, Maryport.—The main sewerage works here having been completed, the engineer, Mr. H. U. McKie, of Carlisle, has presented his report to the Trustees for the Town and Harbour. He states that the contractors, Messrs. H. Fisher & Co., of Cockermouth, broke ground in July, 1885. Eighteen months were allowed for the completion of the works, but they were completed (with the exception of a few details) in October last. The total cost of the works was 13,150*l*. Mr. J. McKie was resident engineer, and Mr. R. Fisher was clerk of the works. Last week the contractors gave a luncheon to the trustees, the sewerage committee, and the officials, to celebrate the completion of the works.

The Student's Column.

FIELD WORK AND INSTRUMENTS.—I.

INTRODUCTION.

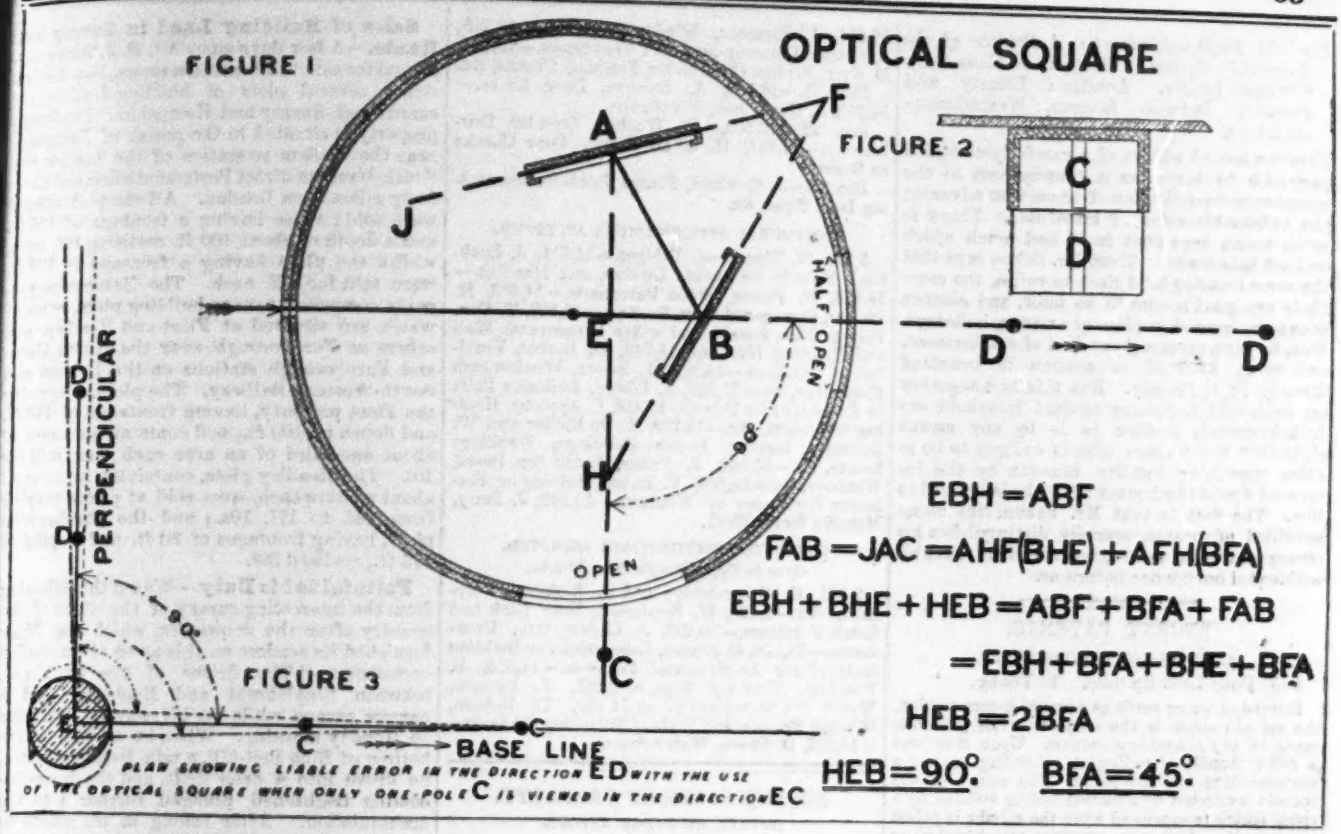
THE object of the following articles will be, first, to give the student a good practical knowledge of the construction and handling of surveying instruments, and then to deal with their practical application in setting out work. In so doing, we intend to make the various diagrams which will illustrate the subject as self-explanatory as possible, to avoid the tediousness of continuously turning backwards and forwards from the diagram to the letter-press. Some general description will, however, be added, in which we shall state the object of each diagram and the best way to study it. The value of understanding not only the use but also the practical construction of an instrument is shown by the importance set upon this information in the professional examinations annually conducted by the Surveyors' Institution and other bodies, in which examinations a knowledge of land surveying and levelling is required. An acquaintance with the subject also forms an indispensable part of the study of both architects and engineers. A man could not be expected to know thoroughly how to deal with a plan unless he knew how to make it, and those who are most conversant with the instruments employed for the purpose will know best how either to set about the work themselves expeditiously or to direct their assistants to do so in the most approved manner. Special attention will be directed to the methods usually adopted for testing the accuracy of the instruments described. Unless an instrument is in proper adjustment the most careful use of that instrument must of necessity fail to secure accuracy.

Surveying Instruments.

1.—THE OPTICAL SQUARE.

This instrument is used for setting out perpendicular lines and long offsets. It commends itself on account of its portability, being about the size of a large watch, and consists of an outer circular tube attached to one side of the box, and an inner circular tube attached to the other side of the box, the one sliding inside the other, and maintained in position by a small fixed screw connexion, which will be seen in the outer rim or side of the instrument. The inner circular portion can thus be twisted round by the hand to allow of three apertures through both tubes at the side, one open for nearly the whole depth of the side, one open for about half the depth of the side, in addition to a small circular hole to serve as an eye-piece. When not in use the inner tube can be twisted round to close the apertures, and thus prevent dust working its way to the inside.

Fig. 1 illustrates an enlarged section with the top-plate of the inner tube removed, so as to show the two glasses marked A and B, which are permanently fixed by the makers, in vertical planes intersecting one another at an angle of 45 degrees. The glass marked A is formed entirely of silvered glass, while the glass marked B is silvered for only half its depth, as indicated in fig. 2, which shows the attachment to the upper plate in the diagram. In using the instrument, the surveyor holds it horizontally in one hand; placing his eye opposite the glass B, at the arrow in fig. 1, and looking towards D, he observes the pole D, through the plain or unsilvered portion of the glass B, while a pole at C, if the angle CED forms a right angle, will be reflected from the looking-glass at A, and seen in the silvered portion of the glass at B, one pole coming in line over the other, as indicated in fig. 2. The mathematical proof given in the diagram depends upon the angle of incidence JAE being equal to the angle of reflection BAF so far as the glass A is concerned, and the angle of incidence ABF being equal to the angle of reflection EBH so far as the glass B is concerned. The exterior angle of the triangle AHF is equal to its two interior and opposite angles, and these angles can be named for purposes of further application as the angles BHE and BFA, as shown in brackets on line 2. Then the three angles of the triangle EBH being equal to the three angles of the triangle ABF, and one of the angles in the triangle ABF being proved equal to the sum of the two angles BHE and BFA, we obtain, by substituting these values, an equation in which the angles EBH and BHE appear common to both sides: hence the remaining angles are



equal, and the angle HEB formed by the intersection of the lines ED and EC at the point over which the instrument is held, is seen to be double the angle BFA formed at the intersection of the planes contained by the mirrors.

Fig. 3 shows a precaution to be observed when great accuracy is required by viewing two poles instead of one in the required direction. It is evident that if the dotted lines be continued for any length, the direction of the required perpendicular would deviate considerably from that indicated by the full line, while the position of the surveyor at E might depart but very slightly from the direction of the given line EC. With the use of a second pole in the line EC this error of deviation would be at once detected, and by setting two poles with the instrument in the line ED, the direction could be more accurately continued than when only one pole is employed. Fig. 1 may be taken to illustrate setting out a perpendicular to the right-hand side of the surveyor, in which case the optical square is held in the left-hand, and the surveyor directs his assistant with his right-hand. Fig. 3 illustrates setting out a perpendicular to the left-hand of a given line, in which case the instrument is simply turned over, held in the surveyor's right-hand, his assistant being directed by his left-hand. Thus the open portion of the side, which allows the pole to be reflected in the mirror at A, is left unimpeded by the surveyor's hand holding the instrument. In each case the assistant has to keep his pole upright, and to follow the direction of the surveyor as to moving the pole to be set out, either right or left, until one pole is reflected over the other in the glass B. When this coincidence takes place the pole is fixed in the ground, and the right angle is said to be set out.

Cremation in Denmark.—The first cremation in Denmark was recently performed at Copenhagen. The whole process lasted an hour and a half, but it is anticipated that it will be greatly shortened when the furnace has been used a few times more. There was not the slightest trace of either smoke or smell. The body cremated was that of a Swedish convict. The crematory is built according to the design of a Danish architect, but has been constructed by a Milanese firm of engineers. The length of the building is 32 ft., and the breadth 21 ft., there being two stories. In the lower one the gas furnace is placed, whilst in the upper one stands the real cremating furnace. There is also a small room for relatives, &c., who desire to be present during the operation. A bridge of stone leads from the ground to the upper story, along which the body is carried to the cremating furnace.

Books.

Ornamental Interiors, Ancient and Modern. By J. MOYR SMITH. London: Crosby Lockwood & Co. 1887.

THIS is far too ambitious a title for what is really only a series of pleasantly-written, but rather rambling, notes on the subject of interior decoration. The book, which is mainly a reprint of a series of articles, is, however, well illustrated and handsomely got up, and contains some true criticism and a good many good examples of decorative treatment. There are a great many descriptions of various "treatments" of interiors given, which may be read with interest as descriptions and with advantage as suggestions. There is a rather amusing off-hand style about the book, and in the manner in which various decorative designers are referred to in a kind of clapping-on-the-back fashion, as "Fred" this and "Alf" the other; indeed, Mr. Smith seems mostly to consider the usual prefix of "Mr." as an unnecessary formality in speaking of his contemporaries, though he is every now and then seized with a recollection of it. About the author's decorative recommendations there need be no crossing of swords; they are in general marked by good taste if not by any very remarkable originality. Some special point is given to the book, however, by the audacious manner in which the author assails some prevalent ideas and existing reputations. Among other things, he does not scruple to knock Mr. Ruskin about in a way that would deeply shock that prophet's fair idolaters. He observes that Mr. Ruskin did not discover the Doge's Palace, any more than Turner's genius, but they were not "blindly worshipped" before him. The author shows a want of the sense of proportion in coupling together Turner's genius and the Doge's Palace, as if they were two things in the same category, whereas Turner is worth all the Doge's Palaces that ever might, could, or should have been. But when he goes on to say that "the difference between the work of an incompetent and a competent critic may easily be perceived by comparing Ruskin's 'Stones of Venice' with Fergusson's 'Handbook of Architecture'"; and that beside Fergusson, the mature man who has studied all styles, Ruskin appears like "an uninstructed amateur," we may say that he shows himself a competent critic as well as an outspoken one. Mr. Smith is not unhappy either in some of his criticisms on the architectural profession. There is only too much illustration of the truth of his remarks on page 81 as to the way in which the second or third-rate architect struggles to follow the fashions of the leading men and frames principles for doing so. "When fashion decrees that a woman shall wear a dress that violates the usual canons of good form she does not defend the principle or want of principle; she simply says that she wears it because it is the fashion. Architects, however, while showing all a woman's eagerness to adopt a new fashion, always manage to convince themselves that the mode they adopt is the best possible, and of irreproachable principles." For "always" read "often"; but the remark is true enough with that limitation. We are also very glad to see the author's hearty appreciation of the architectural qualities of that much under-rated building, the Houses of Parliament.

Mr. Moyr Smith gives, in a chapter on "Amateur and Architectural Amateur Decoration," an amusing sketch of the days when ladies and decorators were quite agreed that there was nothing so tasteful in a drawing-room at least as "white and gold," with doors grained to represent satin wood, &c. But we do not see the sense of Mr. Smith's sarcasms at the "high-souled men" who have since come boldly forward and denounced "the awful iniquity" of graining and of realistic flowers, &c. We quite agree that a tone of absurd solemnity has often been taken by the denouncers of "shams" of this kind; but there is really no common ground between imitation of graining and imitation of the human figure in sculpture and painting, which is a comparison the author draws. The grain markings of wood are not matters worth the trouble of an imitative art of reproducing, for one thing; and further, there is no doubt that the main object of graining, whatever may be pretended, is to convey the impression of a better and more costly wood than has really been employed. As such it is a vulgarity; and we may add that "we" considered it so *before* the fashion of criticism turned against it; and shall continue to think so after it is revived, if it is revived. It is a foolish employment of human ingenuity. The author is probably right in his estimate of the part played by good fortune, and the support of literary friends, in the reputation of "the Morris papers." The first patterns introduced by the poet, however, embodied a new idea in wall-paper designs, which is something.

> "Now, most can raise the flowers,
> For all have got the seed."

We cannot help thinking that Mr. Moyr Smith could have produced a much better book on the subject he has treated if he had taken the trouble to go into it systematically, instead of merely putting together a collection of rather rambling essays. As it is, the book is a pretty and a readable one, and that is about all.

Freehold Disfranchisement: A Defence of the Leasehold System. Second edition. By GEORGE BEKEN. London: Liberty and Property Defence League, Westminster-chambers.

THIS is a second edition of a carefully-compiled pamphlet to serve as a counterblast to the speeches and publication of those who advocate the enfranchisement of leaseholds. There is much sound argument in it, and much which will not hold water. Thus, Mr. Beken says that the more building land rises in value, the more likely are good houses to be built, and costlier ones to be erected in place of existing buildings. This, he says, gives a great deal of employment, and every kind of occupation is benefited directly or indirectly. But this is altogether an irrelevant argument against leasehold enfranchisement, neither is it by any means clear that a workman who is obliged to be in some particular locality benefits by the increased size of the houses where he is obliged to live. The fact is that Mr. Beken, like many unskilled advocates, scarcely distinguishes his strong and weak points, and marshals them all with equal confidence before us.

RECENT PATENTS.

ABSTRACTS OF SPECIFICATIONS.

905, Door Lock Spindle. T. Young.

Instead of being made as usual in square section, the spindle which is the subject of this patent is made of any convenient section. Upon it is fixed a roller capable of rolling or of sliding against a corresponding inclined plane. The return of the spindle is effected by a feather spring assisted by a spiral spring (compressed when the spindle is pulled or pushed), which also prevents the handles or spindle shaking loosely in the lock.

923, Water-closets. H. W. Buchan.

The improvements which constitute this invention have reference to closets of the Bramah pattern, and consist in an alteration of the basin. The trap is combined with the basin, dispensing with the separate trap or S-bend in the discharge-pipe or outlet. The overflow also is taken from the lower end of the basin at a point which is always sealed, and prevents the admission of sewer gas into the basin from the soil-pipe into which the overflow discharges.

979, Fanlights, Ventilators, Casements, &c. W. Leggott.

The patentee's improved apparatus is arranged in such a manner that the inventor is enabled to dispense with the ordinary hinges, and the fanlights are also locked or secured in any position to which they are moved within the range of the apparatus. A toothed quadrant gearing is preferably employed; the quadrant gearing into a toothed rack that is secured to an internal worm worked upon an external worm, which, when actuated, operates a nut and quadrant, causing the casement or ventilator to be moved on the trunnions.

981, Skylights. W. Leggott.

This invention consists in an adaptation of somewhat similar mechanism to the opening of skylights, and is principally designed with a view of operating the skylights from the floor, so as to avoid the use of a step-ladder or other apparatus. The skylight is locked also in any position to which it may be raised.

1,086, Paint. F. Wendling.

The paint which forms the subject of this patent is designed for specially resisting atmospheric influences and variations of temperature, and is intended to be washable. Silicates, lime, potash are mixed, and caustic potash afterwards added. It is said to mix well with colours, and to be cheap.

1,130, Bricks, &c. W. Johnson.

According to this invention the clay, as it passes from the hopper, is covered on the top and the sides with sand, and to ensure the attachment of the sand it is passed between rollers which press the sand firmly into the surface of the clay. The bricks are made in an expanding mould, which is not closed until the brick has been placed in position, ready for pressing, the mould being opened or expanded before the brick is forced out.

1,149, Door-checks. H. Hartung.

This invention consists principally in the combination of two sliding-rods, arranged at right-angles to each other; one of these rods is formed telescopically, and the other with a piston and cylinder, and the rods are connected together and compounded by means of links.

NEW APPLICATIONS FOR PATENTS.

Dec. 17.—16,555, H. Sulley, Pavement Lights.—16,570, E. Abercrombie and C. Hall, Push and Pull Bar-handle and Door-knob.—16,612, C. Harris, Gaseliers and Gas-brackets.

Dec. 18.—16,637, E. Mileson, Mantel-board.—16,665, J. Johnson, Locks.

Dec. 20.—16,676, W. Presaland, Burglar-alarm.—16,694, J. Seymour, Window-fastenings.—16,705, A. Clarke, Chimney-caps and Ventilators.—16,708, M. Syer, Syphon Cisterns for Flushing Closets, &c.

Dec. 21.—16,730, A. Dawson, Door Locks.—16,752, J. Honeyman, Ventilators.

Dec. 22.—16,809, E. Hughes, Circular Saw-benches.—16,811, H. & H. House, Door Checks or Buffers.

Dec. 23.—J. Rowland, Flange Joint for Connecting Lead Pipes, &c.

PROVISIONAL SPECIFICATIONS ACCEPTED.

5,206, W. Thompson, Bridges.—14,011, J. Buckland, Spindle for Locks, Latches, and Handles.—14,124, H. Freese, Wood Pavements.—14,423, H. Tucker, Corrugated Iron Roofing.—14,527, T. Cox, Fixing Tiles, Panels, and other Ornamental Wall and Building Linings.—14,848, G. Barker, Ventilating Buildings.—14,888, J. Brown, Window-sash Fastenings, &c.—15,386, A. Illidge, Indicator Bolts or Fastenings for Doors.—15,456, C. Appleby, Heating Chambers, &c.—15,759, R. De Ridder and W. Bennett, Heating Public Buildings, Dwelling-houses, &c.—15,542, J. Fisher, Latch for Doors, Windows, &c.—15,603, F. Baker, Buttons or Fasteners for Doors or Windows.—15,949, J. Berly, Metallic Trellis Work.

COMPLETE SPECIFICATIONS ACCEPTED.

Open to Opposition for Two Months.

2,374, C. Groombridge and J. Rickman, Door-chain, &c.—2,427, W. Sanderson, Door Lock and Latch Furniture.—10,207, J. Garvie, jun., Excavators.—13,278, C. Straub, Composition or Building Material for Architectural Purposes.—14,374, E. Theedam, Chimney Tops.—2,861, T. Panario, Water Waste-preventer.—11,460, T. Robson, Window Frames, and Mode of Balancing the Sashes.—15,212, D. Grove, Water-closets.

RECENT SALES OF PROPERTY.

ESTATE EXCHANGE REPORT.

DECEMBER 16.

By BAXTER, PAYNE, & LEPPER.

St. Mary Cray—A plot of freehold land	£200
Bexley—4, Vincent-place, freehold	210
Cudham—Two freehold cottages in South-street	210
Widmore—33 to 39 (odd), Tylney-road, 76 years, ground-rent 7*l.* 12*s.*	470

DECEMBER 17.

By NORTON, TRIST, WATNEY, & Co.

Hackney—Leasehold ground-rent of 10*l.*	190

DECEMBER 21.

By HAMNETT & Co.

West Kensington—8, Avonmore-road, 94 years, ground-rent 12*l.*	910
32, Glazbury-road, 90 years, ground-rent 15*l.*	830
31, Fulham Park-gardens, 91 years, ground-rent 12*l.*	405

By DALE & SON.

Mile End—46, Harford-street, 51 years, no ground-rent	330
200, Jubilee-street, 23 years, ground-rent 4*l.*	200

By A. CHANCELLOR.

Twickenham—Three plots of freehold land	660

By REYNOLDS & EASON.

Islington—12, Canonbury-place, 58 years, ground-rent 10*l.*	650
50 and 52, Downham-road, 30 years, ground-rent 11*l.*	610
Bethnal Green—1 to 4, Turville-court, freehold	550
Hackney—91 and 93, Wick-road, freehold	630

MEETINGS.

SATURDAY, JANUARY 1.

Association of Public Sanitary Inspectors.—Mr. James Bateman on "Sewage Irrigation Applicable to Small Areas." 6 p.m.

MONDAY, JANUARY 3.

Royal Academy.—Mr. J. E. Hodgson, R.A., on "Art a Universal Language." I. 8 p.m.

TUESDAY, JANUARY 4.

Birmingham Architectural Association.—Mr. T. Camm on "Art in Glass in relation to Architecture." 7.30 p.m.

WEDNESDAY, JANUARY 5.

Civil and Mechanical Engineers' Society.—(1) General Meeting. (2) Mr. C. H. Cooper on "The Treatment of Sewage at Wimbledon." 7 p.m.

Builders' Foremen and Clerks of Works' Institution.—Ordinary meeting. 8.30 p.m.

THURSDAY, JANUARY 6.

Royal Academy.—Mr. J. E. Hodgson, R.A., on "Art a Universal Language." II. 8 p.m.

Edinburgh Architectural Association.—Mr. Harry Chubb on "Ancient, Mediæval, and Modern Locks and Keys." 8 p.m.

FRIDAY, JANUARY 7.

Architectural Association.—Mr. T. M. Rickman, F.S.A., on "The Complement of Architectural Instruction," 7.30 p.m.

Miscellanea.

The Slate Trade.—Meetings of the Welsh Quarry Proprietors were held last week and prices fixed for the coming year. The quarries in the Carnarvon district continue the lists now in force, but with smaller discounts, and there are some slight alterations in the Bangor and Portmadoc lists. At the last-named place trade is expected to be very brisk owing to the increased facilities given by the London and North-Western Railway Company for the Continental trade.

Sales of Building Land in Surrey and Hants.—A few days since Mr. H. J. Brake submitted for sale, at his auction rooms, New Bridge-street, several plots of building land in the counties of Surrey and Hampshire. The Surrey property is situated in the parish of Frensham, near the Haslemere station of the London and South-Western direct Portsmouth line, and about forty miles from London. All the plots offered were sold; those having a frontage of 195 ft. and a depth of about 400 ft. realising 80*l.* each, whilst the plots having a frontage of 132 ft. were sold for 42*l.* each. The Hampshire property comprised twenty building plots, some of which are situated at Fleet and Headley, and others at Farnborough, near the North Camp and Farnborough stations on the London and South-Western Railway. The plots comprising the Fleet property, having frontages of 140 ft. and depth of 100 ft., and containing an area of about one-third of an acre each, were sold for 40*l.* The Headley plots, containing an area of about an acre each, were sold at prices varying from 14*l.* to 17*l.* 10*s.*; and the Farnborough plots, having frontages of 20 ft. and depths of 173 ft., realised 30*l.*

Faithful to his Duty.—We cut the following from the interesting survey of the state of the country after the snowstorm which the *Times* furnished its readers on this as on other similar occasions:—"The driver of the mail cart between Staplehurst and Rochester had a narrow escape while on his way to Rochester on Monday morning. When he arrived at the bottom of Blue Bell-hill, a mile from Maidstone, he drove into a deep drift, and the horse becoming frightened plunged further into the accumulation. After failing in his efforts to extricate the cart, the driver, a young man named Hayes, took out the mail bags, tied them round his body, mounted the horse, and, cutting away the traces, left the cart buried. Several times during the journey the horse fell, burying itself and its rider in deep snow. After a terrible experience of five hours in a blinding storm, Hayes rode up to Rochester Post-office and handed in the mails in safety." Well done, Hayes!

A New Baptist Chapel at East Moulsey. A Baptist chapel has just been erected at East Moulsey, and was opened last week. The building, which is situated in Bridge-road, is in the Gothic style of architecture, and is faced with red brick and stone dressings. The edifice is entered by a prominent stone porch. Internally it is 55 ft. in length, and 30 ft. wide. The interior walls are faced with cement and stucco work, the building being covered in by an open-timbered roof. The seats are of stained pitch-pine, and a dado of the same material is carried round the lower part of the walls. There is a raised platform for the use of the minister, and in front of it a baptistery 4 ft. 6 in. in depth. Attached to the chapel are the minister's and general vestries. Messrs. Potterton & Gould are the architects.

The Attorney-General (Sir Richard Webster, Q.C., M.P.) entertained the employés of Messrs. Kirk & Randall and others connected with the building of his mansion "Winterfold," at dinner at the Onslow Arms, Cranleigh, on the 23rd ult. The vice-chair was occupied by the architect, Mr. E. I'Anson, supported by Mr. Unwin, the clerk of works, and Mr. May, the foreman of works. After the cloth was removed, and the usual loyal toasts had been given, Sir Richard proposed in complimentary terms the health of the contractors, after which the host's health was proposed by Mr. May, and received with great enthusiasm.

A Granite Sarcophagus.—We are informed that the Empress Eugénie has commissioned Messrs. Alex. Macdonald & Co., Limited, of Aberdeen and London, to prepare a polished red granite sarcophagus to contain the remains of the Prince Imperial. It will be an exact reproduction of the massive sarcophagus which was presented by the Queen to the Empress on the death of Napoleon III., and, along with it, will be placed in the Mausoleum now in course of erection at Farnborough-hill.

The Catholic and Apostolic Church, Bridgenorth, has been enriched by the addition of a reredos of Caen stone and alabaster. It is in the style of the Decorated period, and has three crocketed gables. In the centre one is a carved and groined canopy, under which the tabernacle is fixed. The work has been executed by Messrs. Jones & Willis.

The Vacant District Surveyorship.—We are informed that Mr. Alfred Conder, F.R.I.B.A., of Palace Chambers, Westminster, and District Surveyor for Woolwich, has been appointed by the Metropolitan Board of Works to act as Temporary Substitute in the District of Charlton, Lee, and Kidbrooke, rendered vacant by the decease of Mr. J. Collis, the late District Surveyor.

The New Medical Examination Buildings.—The New Examination Hall on the Thames Embankment is rapidly nearing completion, and the question as to the uses to which the vacant plot of land not required for the building should be applied must soon be determined by the authorities of the combined colleges. If pecuniary reasons are not urgent and, considering the large incomes now derived by the two colleges from their examinations, we should not suppose they could be), we would recommend that it should be left as it is, and should not be built on until the requirements of the examining board have been fully tested by one or two years' experience. It will then be time enough to decide whether class-rooms and laboratories for elementary or advanced scientific teaching and work could be added with the greater advantage. If, as is rumoured, there is a great divergence of opinion on this point, there is the more reason for delay, and for not taking any definite step which cannot be subsequently retraced if such a course should then seem expedient.—*Lancet.*

The Channel Tunnel Scheme.—Notice has been given that application will be made to Parliament next session for an Act authorising the South-Eastern and other railway companies to continue their experimental borings, and making provision (in the event of these trial works being so successful as to demonstrate the practicability of constructing the Channel Tunnel) for vesting in the Lords of the Treasury the sole right of determining the expediency of continuing or prosecuting the permanent works of the Tunnel, and for the ultimate transfer of the undertaking to the Government.

Steel Rails in Construction.—We understand that the framework of the building for the American Exhibition at Earl's-court is being constructed of steel rails, such as are used for railways. Two of these, bolted back to back, with the T-side out, make a column, and the only casting required is an angle iron and eyebar, into which the ends of the rails are slipped. This frame will then be covered with plates of glass and sheets of corrugated iron.

A New Kind of Paving Stone.—Trials with a new kind of paving stones are now being made on the Charlottenberg Bridge in Berlin. They are made from a composition of iron slag, coke, and cement, and weigh from 18 lb. to 20 lb. each. It is claimed that the new stone is cheaper than ordinary natural paving stones, and lasts longer. The stones are manufactured at ironworks in Upper Silesia.

Robert Boyle & Son, Limited.—The first annual general meeting of this company is fixed to be held on the 11th of January, at the Cannon-street Hotel, when it is proposed to declare a dividend at the rate of 12 per cent. per annum on the ordinary shares of the company, a substantial proportion of the profits earned being carried forward to the credit of a general reserve account. We are informed that the company have completed arrangements for the manufacture and sale of their various ventilating and sanitary appliances in Germany, France, Belgium, Holland, Spain, and Denmark.

PRICES CURRENT OF MATERIALS.

TIMBER.	£.	s.	d.	£.	s.	d.
Greenheart, B.G. ....ton	6	10	0	7	0	0
Teak, E.I. ....load	9	0	0	14	0	0
Sequoia, U.S. ....foot cube	0	2	4	0	2	7
Ash, Canada ....load	3	0	0	4	10	0
Birch ,, ...	2	5	0	3	10	0
Elm ,, ...	3	10	0	4	10	0
Fir, Dantsic, &c.	1	10	0	4	0	0
Oak ,, ...	2	10	0	4	10	0
Canada	3	0	0	6	0	0
Pine, Canada red	2	0	0	3	10	0
,, yellow	2	5	0	4	0	0
Lath, Dantsic ....fathom	3	0	0	5	0	0
St. Petersburg	4	0	0	5	10	0
Wainscot, Riga ....log	2	15	0	4	0	0
,, Odessa, crown....	3	5	0	3	7	6
Deals, Finland, 2nd and 1st...std.100	7	0	0	8	0	0
,, 4th and 3rd	6	0	0	6	10	0
Riga	5	10	0	7	0	0
St. Petersburg, 1st yellow	8	10	0	14	0	0
,, 2nd ,, ...	7	0	0	8	0	0
,, white	7	0	0	10	0	0
Swedish	6	0	0	15	0	0

TIMBER (*continued*).	£.	s.	d.	£.	s.	d.
Deals, White Sea	7	0	0	17	10	0
Canada, Pine, 1st	17	0	0	29	0	0
,, ,, 2nd....	11	0	0	17	0	0
,, ,, 3rd, &c....	6	0	0	8	0	0
,, Spruce, 1st	8	0	0	11	0	0
,, ,, 3rd and 2nd	5	0	0	7	10	0
New Brunswick, &c....	5	0	0	7	0	0
Battens, all kinds	4	0	0	12	0	0
Flooring Boards, sq. 1 in., Prepared, first	0	9	0	0	13	0
Second	0	7	6	0	8	6
Other qualities	0	5	0	0	7	0
Cedar, Cuba ....foot	0	0	3	0	0	3½
Honduras, &c.	0	0	2½	0	0	3½
Australian	0	0	2	0	0	3
Mahogany, Cuba	0	0	4	0	0	7
St. Domingo, cargo average	0	0	4	0	0	7
Mexican ,, ...	0	0	3½	0	0	4½
Tobasco ,, ...	0	0	4	0	0	6
Honduras ,, ...	0	0	4	0	0	6
Maple, Bird's-eye	0	0	6	0	0	8
Rose, Rio ....ton	7	0	0	10	0	0
Bahia....	6	0	0	10	0	0
Box, Turkey	5	0	0	17	0	0
Satin, St. Domingo ....foot	0	0	6	0	0	10
Porto Rico	0	0	7	0	1	0
Walnut, Italian	0	0	4	0	0	5

METALS.						
IRON—Bar, Welsh, in London...ton	4	7	6	4	15	0
,, ,, in Wales	4	2	6	4	7	6
,, Staffordshire, London	5	10	0	6	0	0
Sheets, single, in London	6	15	0	8	10	0
Hoops ,, ...	6	0	0	7	0	0
Nail-rods ,, ...	5	15	0	6	10	0

METALS (*continued*).	£.	s.	d.	£.	s.	d.
COPPER—						
British, cake and ingot ....ton	42	10	0	43	0	0
Best selected	43	0	0	43	10	0
Sheets, strong....	51	0	0	52	0	0
Chili, bars	38	17	6	39	10	0
YELLOW METAL ....lb.	0	0	4	0	0	4½
LEAD—						
Pig, Spanish ....ton	12	13	9	0	0	0
English, common brands....	12	17	6	0	0	0
Sheet, English	13	16	3	13	18	9
SPELTER—						
Silesian, special ....ton	14	5	0	14	7	6
Ordinary brands....	14	2	6	14	5	0
TIN—						
Straits....ton	101	5	0	0	0	0
Australian	100	5	0	0	0	0
English ingots	104	0	0	0	0	0

OILS.						
Linseed ....ton	20	2	6	20	7	6
Cocoanut, Cochin	37	10	0	0	0	0
Ceylon	26	10	0	0	0	0
Palm, Lagos	23	10	0	24	0	0
Rapeseed, English pale	22	5	0	22	10	0
,, brown	21	10	0	0	0	0
Cottonseed, refined	18	10	0	19	10	0
Tallow and Oleine	25	0	0	45	0	0
Lubricating, U.S.	6	0	0	10	0	0
,, refined	8	0	0	13	0	0
TURPENTINE—						
American, in casks ....cwt.	1	6	6	1	6	9
TAR—						
Stockholm ....barrel	0	15	0	0	15	6
Archangel	0	11	6	0	12	0

COMPETITIONS, CONTRACTS, & PUBLIC APPOINTMENTS.

Epitome of Advertisements in this Number.

COMPETITIONS.

Nature of Work.	By whom required.	Premium.	Designs to be delivered.	Page.
Asylum Buildings	Borough of Maidstone	Not stated	March 1st	ii.

CONTRACTS.

Nature of Work, or Materials.	By whom required.	Architect, Surveyor, or Engineer.	Tenders to be delivered.	Page.
Making-up and Paving Roads	Wandsworth Bd. of Wks	*Official*	Jan. 4th	ii.
Caulking Repairs to Hospital Ship *Custalia*...	Met. Asylums Board ...	Chas. Thomson	Jan. 8th	xxvi.
Storerooms	St. Marylebone Grdns.	H. Saxon Snell & Son...	Jan. 10th	xxviii
Alterations to Local Board Offices	Tottenham Local Board	— De Pape	Jan. 11th	ii.
Making-up Roads, &c.	do.	do.	do.	ii.
Brick Sewer....	do.	do.	do.	ii.
Kerbing, Tar-Paving, Metalling, &c.	Lewisham Brd. of Wks.	*Official*	do.	xxviii
Removal of Dust, &c.	Crown Est. Paving Com.	do.	Jan. 12th	xxvi.
Supply and Fixing of Boiler	Met. Asylums Board ...	do.	do.	xxvi.
Guernsey Granite Spalls	West Ham Union	do.	do.	xxviii
Engineering Works	Wandsworth, &c., Un.	T. W. Aldwinckle	Jan. 13th	xxviii
Promenade Hall, &c.	Weymouth, &c Hall Co.	Crickmay & Son	Jan. 17th	xxviii
Works and Materials	Wandsworth Bd. of Wks	*Official*	Jan. 18th	ii.
Clinker Brick Paving	Beckenham Local Brd.	G. B. Carlton	Jan. 24th	ii.
Stoneware Pipe Sewers	do.	do.	do.	xxvi.
Sewerage Works	Com. of Sewers, Lincoln	J. Kingston....	Jan. 31st	ii.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in.	Page.
Sanitary Inspector	St. Pancras Vestry	120*l.*	Jan. 7th	xxiv.
County Surveyor	Magistrates, &c., of Salop	Not stated	Jan. 15th	xxiv.
Assistant Engineer	Civil Service Com.	do.	Jan. 19th	xxiv.

TENDERS.

BARNES.—For alterations to school at Barnes:—

W. H. Fazan....	£994 0 0
W. Hallett....	980 0 0
G. Barnes	970 0 0
C. Wall	932 0 0
F. R. Toser	919 0 0
W. J. Beale	895 0 0
R. L. Wood	885 0 0
G. Stephenson	871 0 0
G. Tyford	860 0 0
P. H. Dawes	853 0 0
Webb & Rosser....	812 0 0
J. Toser	797 0 0
J. Hill	784 4 0
H. Haynes	775 0 0
A. Sale....	769 0 0
Newton & Idle	768 0 0
J. Channon	750 0 0
J. M. Goodwin....	738 13 6
A. Hunt, Barnes (accepted)....	720 0 0
H. Pickersgill	705 0 0
A. E. Braid	699 0 0

BOURNEMOUTH.—For the erection of refuse-destructor, for the Commissioners. Mr. G. R. Andrews, Borough Surveyor:—

Hoare & Son, Bournemouth....	£1,899 0 0
Brown, Bournemouth....	1,8 0 0 0
James, Bournemouth	1,770 0 0
Crook & Sons, Southampton*	1,429 0 0
Scott & Mitchell, Bournemouth	1,400 0 0
Lucas & Cossar, Bournemouth....	1,350 0 0
Neil, Bournemouth....	1,109 10 0

* Accepted.

CHELSEA.—For new stables, to be erected at Millman-street, Chelsea, for the London Road Car Company. Mr. H. I. Newton, architect, Queen Anne's Gate, Westminster:—

Chafen	£2,530 0 0
Walker	2,157 0 0
W. J. Smith & Son (accepted).....	1,878 0 0

EALING.—For new warehouse in Western-road, Ealing, for Mr. S. Dyer. Mr. George Ashby Lean, architect and surveyor, Ealing. Quantities by the architect:—

	Stables.	Main Building.	Total.
B. Myring	£850 0 ...	£5,996 0 ...	£6,846 0
J. & C. Bowyer	830 0 ...	5,639 0 ...	6,469 0
G. H. & S. Bywaters	725 0 ...	5,538 0 ...	6,263 0
E. Toms....	741 0 ...	5,374 0 ...	6,115 0
W. H. Waters	742 0 ...	5,251 0 ...	5,993 0
Penny & Co....	740 0 ...	5,250 0 ...	5,990 0
H. & A. J. Jones....	709 5 ...	5,214 12 ...	5,923 17
J. & S. Bowyer	750 0 ...	5,125 0 ...	5,875 0
W. Shepherd....	—	—	5,691 0
T. H. Adamson & Son	699 0 ...	4,991 0 ...	5,690 0
T. Nye	619 0 ...	4,554 0 ...	5,173 0

ELSTREE.—For trunk sewer and outfall works at Borcham Wood, Elstree, for the Barnet Rural Sanitary Authority. Mr. W. H. Mansbridge, surveyor:—

		Alternative Tender.
J. Reeves, Walthamstow	£1,625 0	—
G. Osenton, Erith	1,398 0	1s. per ft. less
J. Edmonson, Lower Edmonton...	1,375 12 ...	£1,270 12
Botterill & Co., Cannon-street ...	1,358 0 ...	1,218 0
B. Cooke & Co., Battersea	1,225 0 ...	1,130 0
H. Standon, Willesden Junction...	1,200 0 ...	1,050 0
Neave & Son, Paddington....	1,192 0 ...	1,072 0
T. G. Dunmore, Crouch End	1,190 0 ...	1,081 0
W. Nickolls, Wood Green	1,164 0 ...	1,052 0
Woodham & Fry, Greenwich	1,066 0 ...	939 0
T. W. Grindle, Bishopsgate....	1,031 0 ...	900 0
H. Potter, Lower Clapton	997 0 ...	865 0
Innes & Wood, Birmingham	995 0 ...	—
Rowland Bros., Fenny Stratford...	966 10 ...	813 7
J. Dickson, St. Albans....	880 0 ...	775 0
Capper & Co., St. Albans....	875 10 ...	—
Marriott Bros., Barnet	871 0 ...	787 0
J. Young, Buckhurst-hill (accepted)	794 0 ...	702 0
Surveyor's Estimates....	1,160 0 ...	1,050 0

GUILDFORD.—For paving works for the Guildford Gas Company:—

W. H. Wheeler, Queen Victoria-street*	£174 10 0

* Accepted.

HAMMERSMITH.—For additional stabling, King-street, Hammersmith, for the London General Omnibus Company. Under the superintendence of Mr. Lanham. Quantities by Mr. A. J. Bolton:—

	A.	B.
Farnan	£2,350	£1,086
Hack	2,284	1,049
Roberts	2,160	997
Knight	2,160	993
Webb & Rosser	2,174	987
Higgs	2,060	993
Manley	2,043	989
Garrud	1,983	957
Richens & Mount	1 982	912
Evans	1,969	875
Haynes	1,900	875
Parker (accepted)	1,920	859

HAMMERSMITH.—For buildings, stables, and premises, Hammersmith-road, for the London Road Car Co. (Limited). Mr. P. Dollar, architect, Great Marlborough-street:—

A. R. Flew & Co. (accepted) £5,100 0 0

HAMPSTEAD.—For works in connexion with the Hampstead Improvement, for the Metropolitan Board of Works:—

G. Elkington	£10,300 0 0
Hindle & Morrish	9,800 0 0
Church & Co.	8,480 0 0
Killingback	7,893 0 0
Rutty	7,880 0 0
Trehearne & Co.	7,550 0 0
Mowlem & Co.	6,993 0 0
Nowell & Robson (accepted)*	6,773 0 0
Bentley	6,740 0 0
Felton	5,675 0 0

HEREFORD.—For the erection of granary, stables, &c., at back of steam corn-mills, Bath-street, Hereford, for the Industrial Aid Society. Mr. T. Clarkson Wakeling, architect. Quantities supplied by the architect:—

Welsh, Hereford	£1,200 0 0
Williams, Merthyr	1,120 0 0
Meredith, Birmingham	1,119 0 0
Pritchard, Hereford	1,114 0 0
Jones & Son, Wolverhampton	1,050 0 0
Bowers & Co., Hereford (accepted)	992 0 0

[Architect's estimate, 1,(25l.]

HOLLOWAY.—For new school buildings, &c., Black-stock-road:—

Tozer	£14,834 10 0
Dawes	13,296 0 0
Godfrey & Son	12,240 0 0
T. L. Green	12,068 0 0
G. Stephenson	11,680 0 0
C. Wall	11,625 0 0
W. Johnson	11,496 0 0
Atherton & Latta	11,395 0 0
Stimpson & Co.	11,374 0 0
Downs	11,352 0 0
Wall Bros.	11,255 0 0
Cox	11,254 0 0
Goodwin	11,155 13 9

LONDON.—For paving and other works for the Metropolitan Board of Works, in the following streets:—

Green-street, Bethnal Green.

Nowell & Robson	£4,212 0 0
Mowlem & Co.	4,145 0 0
Griffiths (accepted)	4,090 0 0
Hindle & Morrish	3,994 0 0

Tench-street, Wapping.

Trehearne	3,350 0 0
Hindle & Morrish	2,999 0 0
Turner & Sons	2,947 0 0
Woodham	2,900 0 0
Bentley	2,744 0 0
Mowlem & Co. (accepted)	2,635 0 0

Brook-street, Limehouse.

Hindle & Morrish	1,890 0 0
Turner & Sons	1,778 0 0
Mowlem & Co. (accepted)	1,619 0 0

LONDON.—For paving works, river wall, and weighing-stages, for Messrs. Randall & Co.'s new coal wharf, Vauxhall:—

W. H. Wheeler, Queen Victoria-street* £310 0 0

* Accepted.

NEW BARNET.—For the erection of three villa-residences, for Mr. J. Monington (who supplies fittings and fences). Mr. P. Dollar, architect, Great Marlborough-street:—

A. R. Flew & Co. (accepted) £1,915 0 0

[No competition.]

NEWPORT (Mon.).—For two shops and houses, Chepstow-road, Maindee, Newport, for Mr. John Young. Quantities by the architect, Mr. E. A. Lansdowne, Newport:—

C. Reed	£858 18 0
G. Martin	799 0 0
G. Wilkins	793 0 0
Firbank	760 0 0
G. Morgan	719 0 0
T. Golsworthy	700 18 9
C. Miles	694 0 0
J. Linton	690 0 0
H. C. Parfitt	690 0 0
W. Linton	687 0 0
W. Blackburn	677 0 0
Lier	656 10 0
T. Westacott	646 0 0
W. Jones & Son	645 0 0
C. Colley	643 0 0
E. Richards	630 0 0
T. Webb	597 0 0
W. Price	569 0 0

[All of Newport.]

WEST KENSINGTON.—For rebuilding Cedars Mews for the London Road Car Co. (Limited). Mr. P. Dollar, architect, Great Marlborough street:—

	Allow for Old Materials.
A. R. Flew & Co. (accepted)	£2,270 ... £184

SPECIAL NOTICE.—**Lists of Tenders frequently reach us too late for insertion. They should be delivered at our office, 46, Catherine-street, W.C., *not later* than *Four p.m.* on THURSDAYS.**

FIRE BRICKS.

E. BOWEN, Fire Brick Manufacturer, STOURBRIDGE.
Manufacturer of Best Stourbridge Fire Bricks, and Cement Fire Clay, Gas Retorts, Muffles, &c. Fire Bricks and Blocks for the Highest Heats, for Iron Blast Furnaces, Forge, Rolling, Puddling, and Steel Furnaces, Pottery, Bottle, and Flint Glass Furnaces, Roasting and Refining Furnaces, Chemical Works, Coke Ovens, &c. Boiler Seating Blocks, Flue Covers, Locomotive Bricks, Tuyeres, Steel Runners, Grate Backs.
Special Sizes and Shapes made to Engineers' Drawings.
Prices quoted to any Port or Railway Station.
London Agents:—
R. CULL & SON, *Palmerston-buildings, E.C.*
Stores:—Railway Arches, Corner of London-street and Brady-street, near Bethnal Green Station.

GLAZED BRICKS.

OATES & GREEN, HALIFAX.
GLAZED BRICKS (White and Coloured), Special Salt Glazed Bricks Sanitary Tubes, Glazed Earthenware Sinks, Cattle, Sheep, and Pig Troughs, Horse Mangers, Patent Automatic Trough Closet, Patent Flush Tank, Channelling for Stables and Yards, Salt Glazed Bricks for Stables, Sewers, &c. Ventilating Bricks, Patent Ventilating Gullies and Traps, Garden Edging, Patent Chimney Pots and Cures for Down Draughts, Patent Drain-Cleaning Rods.
Six Prize Medals. Copies of Testimonials sent if required.
London Agents:—
R. CULL & SON, Palmerston-buildings, E.C.
Stores:—Railway Arches, Corner of London-street and Brady-street, near Bethnal Green Station.

BLUE BRICKS.

THE KETLEY BRICK COMPANY, Manufacturers of Staffordshire Blue Bricks, KINGSWINFORD, near Dudley, Staffordshire.
London Agents:—
R. CULL & SON, Palmerston-buildings, E.C.
Stores:—Railway Arches, Corner of London-street and Brady-street, near Bethnal Green Station.

DRAIN PIPES.

Lime, Cement, Bricks, Slates, Laths, Hair, Sand, Plaster, Stable Paving Bricks, Wall Copings, Channel Bricks, Blue and Red Ridges, Red Plain Tiles and Fan Tiles, Closet Pans and Traps. Drain Pipes, Bends, Junctions, &c. all sizes. Chimney-Pots, Red and White. Fire Bricks, Lumps, Tiles, Fire Clay. PRICES on APPLICATION.
R. CULL & SON'S Stores, Railway Arches, Corner of London-street and Brady-st., near Bethnal Green Station.
Chief Office:—72, Palmerston-buildings, Old Broad-street, E.C.

TO CORRESPONDENTS.

Registered Telegraphic Address, "THE BUILDER, LONDON."

P. O.—C. S.—O. T. W. (impossible we can say without seeing the work itself; you had better consult a local architect; correspondents should always give full name and address).—J. P. S.—O. & Co. (our advertising columns are open).—J. V.

All statements of facts, lists of tenders, &c., must be accompanied by the name and address of the sender, not necessarily for publication.

We are compelled to decline pointing out books and giving addresses.

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news-items) which have been duplicated for other journals, are NOT DESIRED.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; all communications relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and not to the Editor.

Best Bath Stone.

CORSHAM DOWN, FARLEIGH DOWN, } SUMMER DRIED.

BOX GROUND. COMBE DOWN. WESTWOOD GROUND.

RANDELL, SAUNDERS, & CO., LD., CORSHAM, WILTS.

Bath Stone.

BEST QUALITY OF ALL KINDS.

PICTOR & SONS, BOX, WILTS. [ADVT.

Doulting Freestone.

THE CHELYNCH STONE. The stone from these quarries is known as the "Weather Beds," and is of a very crystalline nature, and undoubtedly one of the most durable stones in England.

THE BRAMBLEDITCH STONE. Is of the same crystalline nature as the Chelynch Stone, but finer in texture, and more suitable for fine moulded work.

HAM HILL STONE.

Greater facilities have been provided for working these quarries, and the stone can be supplied in large quantities at short notice.

Prices, and every information given, on application to CHARLES TRASK & SONS, Norton-sub-Hamdon, near Ilminster, Somerset. London Agent—Mr. H. WILLIAMS, 16, Craven-street, Strand, W.C. [ADVT.

Doulting Free Stone **HAM HILL STONE,** **BLUE LIAS LIME** (Ground or Lump), For prices, &c., address S. & J. STAPLE, Quarry Owners, Stone and Lime Merchants, Stoke-under-Ham, Ilminster. [ADVT.

Asphalte.—The Seyssel and Metallic Lava Asphalte Company (Mr. H. Glenn), Office, 38, Poultry, E.C.—The best and cheapest materials for damp courses, railway arches, warehouse floors, flat roofs, stables, cow-sheds, and milk-rooms, granaries, tun-rooms, and terraces. [ADVT.

Asphalte.
Seyssel, Patent Metallic Lava, and White Asphaltes.
M. STODART & CO.
Office:
No. 90, Cannon-street, E.C. [ADVT.

NOTICE.—THE BANNER SANITATION CO. *beg to give Notice that having sold over* 10,000 BANNER'S PATENT VENTILATORS, *also a proportionate number of other Sanitary Appliances, and wishing to keep pace with the times, they have decided to reduce the prices of their goods from 25 per cent. to 40 per cent., thus offering to the public the best appliances at the lowest prices.*

BANNER VENTILATORS.

The Strongest Exhaust Ventilators for all Buildings, Public Halls, Churches, Billiard-Rooms, &c.

HIGHEST PRIZES at all the most Important EXHIBITIONS.

***Gold Medal. Health Exhibition*, 1884.**

For further Particulars and Revised Prices, apply to

BANNER SANITATION COMPANY,

Wessex House, Northumberland Avenue, Charing Cross, London, W.C.